

LAND USE AND POPULATION IN ST. VINCENT, 1763-1960

A CONTRIBUTION TO THE
STUDY OF THE PATTERNS OF ECONOMIC AND DEMOGRAPHIC CHANGE
IN A SMALL WEST INDIAN ISLAND

By
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To the Memory of My Father and My Mother

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Abstract of Dissertation Presented to the
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The purpose of this study of St. Vincent is to reconstruct the historical economic and population geography of a small West Indian island. It was observed that many of the 20th-century problems encountered in St. Vincent were linked directly to past conditions in the former British West Indies. The time spectrum for this study extends from 1763 (when Britain acquired the island) to 1960, the date of the latest published census.

A subsidiary goal of this study is the presentation in a single source of a considerable amount of historical data gleaned from numerous and sometimes hitherto untapped references, many of which may soon pass out of existence from disuse or deterioration.

The problem of concern in this investigation is the relationship between fluctuations in the export economy and changes in the population. An analysis of the economically "dependent"

status of the island and the major population changes over nearly 200 years revealed a pattern suggesting the paramount role of the export economy in affecting the rate of population growth and changes in the components of demographic composition.

It was, therefore, hypothesized that the size, distribution, and characteristics of St. Vincent's population have been affected by variations in the national export economy. A comprehensive analysis of the economy and population between 1763 and 1960 supports this hypothesis.

Part I of this study involves a reconstruction of the overlapping periods of monocultural cash crop production, beginning with the sugar industry in the late 18th century. It was primarily during the 19th century, however, that sugar production was developed and expanded, at first with slave labor, then, after emancipation in 1838, by the use of indentured alien laborers--Portuguese Madeirans, "liberated" African slaves, and East Indian "coolies." The demise of the inefficient muscovado sugar industry in St. Vincent followed the entry of subsidized European beet sugar into the British market after 1880 and was hastened by the twin natural disasters of a hurricane in 1898 and an eruption of the Soufriere volcano in 1902.

It was in the 20th century that St. Vincent experienced monocultural production of Sea Island cotton, arrowroot starch, and bananas as primary economic activities. Each of these activities overlapped its predecessor as it rose quickly to a

position of supreme importance before waning in the face of exogenous market forces.

Part II traces the demographic changes that reflected local and international fluctuations in the primary producing industries. With the abolition of the slave trade in 1808, the population of St. Vincent grew very slowly, as the effects of natural increase were reduced by the mass emigrations of Vincentians between 1880 and 1931. Thereafter, St. Vincent's population grew rapidly as mortality declined and emigration was stifled by international restrictions.

By 1960, St. Vincent still showed the results of past emigrations of males and the more recent high rates of natural increase--a low sex ratio and a heavy burden of economic dependency, concentrated among children under 15 years of age. Partly as a consequence of monetary remittances from relatives working abroad and the changing attitudes of both sexes toward agricultural employment, the labor force shows a low level of female participation and a growing proportion of workers entering the secondary and tertiary sectors of the economy.

The results of this economic and population analysis demonstrate the lasting effects of shifting patterns of economic activity on the rate of population growth and composition. Any attempt to improve the demographic situation of St. Vincent must take into account the disruptions attendant upon unpredictable and sometimes violent fluctuations in the fortunes of cash crop export production.

CHAPTER I

INTRODUCTION

The days of laissez faire are at an end for most nations of the world. Instead, a degree of planning, prediction, and action, based on viable data has become the prime consideration. In the last quarter of a century, all West Indian governments and institutions have tried to gain an understanding of their political, economic, social, and demographic problems before going ahead with their individual island plans. Preliminary discussions after the Second World War dealt, for example, with the concept of a federation of the British West Indian colonies and produced numerous analytical statements about the difficulties inherent in such a step. It was not long before both scholars and politicians realized that inventories of individual problems would be required for adequate planning.

The colonies in the Caribbean area differed in many ways each from the other. The larger and more important territories, such as Jamaica, Trinidad and Tobago, and British Guiana [now Guyana], overshadowed the smaller islands of the Lesser Antilles in the attention paid to domestic problems. Yet there was no way to mold these countries into a unitary political, economic, and social framework without taking into account individual characteristics. If the colonies were to become one entity, what effect

would this have, for example, on population movements from the less developed British Caribbean islands to the more developed ones? Would black immigrants be welcomed into mixed societies facing their own employment difficulties? Who would speak for the needs of the smaller colonies? Would the "rich" grow richer in the West Indies at the expense of the politically and economically impotent?

These unanswered questions, together with the rapid growth of national self-awareness and self-consciousness, resulted in attempts to appraise the contemporary scene, which, however, had roots in the past; to understand the present, it was, therefore, also necessary to understand the historical sequence of changes in the political, economic, social, and demographic variables.

National economies and population growth quickly became popular topics for investigation. It was only natural that the larger and more important colonies (those, it was thought, which would form the foundation for an intra-Caribbean political federation) were most often studied. Attention was directed to Jamaica, at the western end of the British Caribbean, to Trinidad and Tobago, and to British Guiana, well over a thousand miles apart. Considerably less attention, if any, was devoted to the smaller islands between the "giants." That the projected West Indian Federation came into being in 1958 and was dissolved by 1962 is, in part, a disfunction of these disparate units. The larger islands and continental territories went their own particular ways leaving a major problem yet to be solved—how

were the "Little Eight" to evolve a form of government, a rational socio-economic plan, without re-submitting themselves to neo-colonialism and international beggary?

The present study is an attempt to add to the store of information available describing the patterns of change in St. Vincent's economy and the resulting changes in population variables. Emphasis has been placed on historical trends, of paramount importance if the present problems are to be understood. The fields of economic and population geography are thus both served by the historical nature of the investigation. As Zelinsky states: ". . . population geography is, ipso facto, historical geography"; the same also applies to economic geography. The population geographer becomes, by virtue of the type of data sought and utilized, an historical geographer.¹

St. Vincent in the Windward Islands of the West Indies was selected because it was one of the smaller, "forgotten" islands. Little has been written about this island and what exists has been either of very early or very late date. The broad interval from the end of slavery (1838) until the post-World War II era is devoid of any substantive information concerning the economy, particularly the cash crop export economy, or the changes in population. The present study fills in the gap and provides a narrative of the economic fluctuations of monocultural production for export and the geography of population change and composition, for two centuries, from 1763 to 1960. Since few of the studies concerning the former British colonial empire in the West Indies trace both the economic and

demographic changes, it was felt that an analysis of St. Vincent's past would contribute to the meager fund of historical information available for students of the contemporary scene.

The Problem

The problem of concern in this study is the relationship between fluctuations in the export economy of St. Vincent and changes in the factors of population growth and composition. Throughout its history, St. Vincent has been a "dependent" country—dependent in terms of its main source of revenue and the economic burden which its working-age population has had to bear. At no time since St. Vincent became a British possession, in 1763, has the island been in a commanding or influential economic position. Most of its history, at least up to 1891, has been one of sugar cane production and export.

The island was settled and developed as a "sugar island," a place where huge profits were to be made by large estate owners. Population growth and composition in the 18th and 19th centuries were directly linked to the export economy. Labor requirements for sugar estates were met by African slave quotas until 1807; thereafter, the increase in population and the racial, sex, and age composition varied with the fortunes of the leading export commodity—sugar. To maintain sufficient workers in the fields at low cost, after Emancipation, laws were passed permitting foreign laborers to enter under paid work-contracts which bound the contractees to work in the sugar industry for specified time periods.

Competing sources of sugar for the European market gradually rendered sugar cane production in St. Vincent less profitable after the middle of the 19th century. By 1880, foreign indentured workers were no longer imported, as the sugar industry in St. Vincent faced a situation where profitability was restricted to modernized large-scale estates found in the larger and less traditional British tropical possessions around the world. High rates of absentee-ownership in St. Vincent meant that diversification of the economy was slow in being established. Sugar production continued to decline after the 1870s, so that by 1891, another cash crop—arrowroot starch—became the mainstay of the economy.

What followed in the 20th century were attempts to support the working population by emphasizing several different cash crops (arrowroot, Sea Island cotton, and bananas) which competed at various times for both labor and land. The true "monoculture" of the 18th and 19th centuries was replaced in the 20th century by the production of different crops, although the importance of the leading two or three commodities overshadowed all of the other economic activities. In a sense, the 20th century has been characterized more by "overlapping" monocultural activities than by sharply divided epochs.

The effects of frequent shifts in emphasis from one type of cash crop regime to another affected the size, rate of growth, and composition of St. Vincent's population. The author was struck by the coincidence of population changes attendant upon major shifts in the export economy. The problem was one of

reconciling the broad demographic fluctuations with the history of economic fluctuations in the island. Were they independent of each other? Did they occur simultaneously or did one precede the other?

Before describing and explaining the changes in the population of the island, it was necessary to reconstruct from numerous official and unofficial documents, both published and unpublished, the complete economic historical geography of St. Vincent. By observing the variations in the population, as revealed by the periodic censuses, and the fluctuations in the export economy, the author determined that population changes were more or less dependent upon the economy. Because of St. Vincent's relatively insignificant size and production of cash crops, it seemed unlikely that the population could dictate what economic activity should be pursued. The massive force of the international markets, through the demand for particular products has usually influenced the economic activities that could be profitably undertaken in St. Vincent. It has been the inability or unwillingness of Vincentian growers to change with shifts in demand that seemed to cause employment difficulties. Responding to the low wages and the lack of sufficiently satisfying job opportunities in St. Vincent, large numbers of Vincentian laborers have emigrated—some permanently, others only seasonally—to destinations in the circum-Caribbean region, Canada, and the United Kingdom.

The Working Hypothesis

The theme of this investigation is the relation between the nature and operation of the Vincentian economy and the changing demographic variables. Accordingly, the implied hypothesis throughout the following chapters is that the size, distribution, and characteristics of St. Vincent's population have been affected by the variations in the national export economy. A quantitative testing of the hypothesis cannot be predicated, owing to the nature and scope of the historical data. If there is to be a quantitative testing of the hypothesis then the historical statistics must be valid and reliable. There is no way to test data gathered as far back as 1763 and, in fact, population data assembled before 1946 are probably subject to considerable discount.

The author's intention is to present the broad, general patterns of economic and demographic fluctuations, and it is assumed that errors in the data, although they may be substantial, do not preclude the reconstruction of past events. It matters less that the statistics found in historical documents are totally reliable and valid than that they permit the researcher to observe periods of prosperity and depression in the economy and intervals of population change which correspond to the economic variations.

A subsidiary goal of this study is the presentation of historical data and facts that may soon be lost to posterity. It is felt that future students of West Indian problems should not have to undergo the laborious and sometimes disheartening

task of scouring government archives (which are on the point of extinction because minor government officials are unconcerned with the past) to reconstruct the economic and demographic history of St. Vincent. The archives are fruitful storehouse of information and need to be closely examined; the present study offers a partial restoration of historical events in St. Vincent's past and leaves other students to present their efforts at salvaging the history of the island. The author feels that a contribution to an understanding of the West Indies lies in the presentation of hitherto unavailable or widely scattered historical data.

Definitions of Terms and Limitations in the Study

In the substantive chapters which follow, the author has restricted his analysis to the island called St. Vincent, located in the West Indies. During the time period under investigation (1763 to 1960), St. Vincent was a crown colony of Great Britain.² Wherever the name "St. Vincent" appears, it refers to the main island and its dependencies in the Grenadine Islands stretching southward toward Grenada. If there is a need to differentiate between the component parts of the colony, the terms "main island" and "Grenadine dependencies" (or "Grenadine Islands" and "Grenadines") will be used; therefore, unless otherwise indicated, the name St. Vincent always denotes the entire colony.

The subject of this study is the export segment of the island's economy; the statistics used are the foreign trade statistics which measure the chief source of the colony's revenue.

In a reconstruction of the past, the date of Britain's acquisition of St. Vincent (1763) is regarded as the one end of the spectrum and the date of the last completed census as the other (1960). Although a population census was taken in 1970, it has not been published, and, therefore, the decade of the 1960s has unfortunately been excluded from the analysis. The omission precludes a study of the major changes that have occurred with the rapid growth of the banana industry in the 1960s, although the effects of the first flush of success from the banana trade, up to 1960, are discussed. Unfortunately, most of the trade data for the 1960s is still unavailable. Long delays in publishing statistics in St. Vincent are not uncommon, as was indicated for the 1960 census. These considerations influenced the author in his decision to limit the analysis to 1960.

Finally, throughout this study, the term "the West Indies" appears: unless otherwise qualified, the expression refers to the former British West Indies (or British Caribbean) and includes British Guiana [now Guyana] on the South American continent.

A Review of the Literature

A review of the literature pertaining to the historical economic and population geography of St. Vincent must, of necessity, be interdisciplinary because non-geographers have contributed most of the research on the British West Indies. To understand the evolution of St. Vincent's economic and population problems, it is vitally necessary to become acquainted

with studies of other individual countries in the British Caribbean which may serve as models for comparison. A survey of the literature reveals a dearth of research aimed at St. Vincent and, hence, includes an accounting of related general and specific works, with both a contemporary and an historical time perspective.³

Studies of St. Vincent

The literature that refers specifically to St. Vincent's economic and demographic situation, both in the recent and distant past, is almost non-existent. The only comprehensive study of St. Vincent's population is Byrne's narrowly demographic analysis, which describes trends since 1851, but emphasizes changing vital rates in the 20th century and their consequences for the future.⁴ She makes no attempt to correlate major economic and demographic phases except in the most general sense. Needless to say, population geographers have yet to draw much of their attention to the West Indies; most students of West Indian population have been demographers.

The economic geography of St. Vincent has been analyzed in several articles, all confined to the years after 1920; none go back to the 18th or 19th centuries. The articles are time series pictures of the past and are static in perspective.⁵ No attempt has been made to join the major events of the last two centuries into a continuous pattern. Population in St. Vincent has been the target solely of scholars of West Indian demography and sociology, while the economy has been the focus of a few geographers, although both economic and population studies of the island are relatively rare.

Among the available historical references concerned with early social, cultural, and economic life in the British West Indies, two treat the conditions in St. Vincent at length. Mrs. Carmichael's books describe daily social and cultural life in St. Vincent under slavery, while Shepard's book is valuable for its statistical appendices, which document the economic history of the island up to 1829.⁶

Other valuable sources of general historical information are contained in books and articles that have a wider scope, and include St. Vincent, among other British colonial possessions in the 18th and 19th centuries. Most of these are cited in the chapters that follow, but important examples include Niddrie's study of the 18th century settlement of the "Ceded Islands" (Dominica, St. Vincent, Grenada, and Tobago);⁷ Walters's biography of Valentine Morris (governor of the island when the French seized it in 1779) which provides insight into the first two decades of the colony's existence.⁸

Social conditions in St. Vincent are also described in an article by Michael G. Smith, a social anthropologist, who leans heavily on Mrs. Carmichael's work.⁹ Two books covering the period between 1837 and 1859 provide sketches of post-Emancipation social conditions among the ex-slave population.¹⁰ A statistical work by the noted West Indian demographer, G. W. Roberts, provides an invaluable fund of information concerning the number of immigrants, their race, the year of their arrival, and their destination in the British West Indies, from 1834 to 1918.¹¹ Earlier, Roberts published a detailed analysis of the

cause and size of the "liberated" African immigration to the British Caribbean following Emancipation, in which important facts are given concerning St. Vincent's share in this labor migration.¹²

Studies of Other British West Indian Societies

Other countries in the British Caribbean have been more carefully studied. Jamaica, because of its relatively greater size and economic stature in British colonial history, together with the existence of a corpus of scholars in the Institute of Social and Economic Studies, has been the subject of considerable attention. The most comprehensive population analysis of any West Indian territory is found in Roberts's book, The Population of Jamaica, which serves as a model for the comparison of demographic variables of other countries in the Caribbean.¹³ Much of Jamaica's past resembles St. Vincent's, as both suffered from the ill effects of a declining sugar industry in the 19th century and lost population through emigration, although St. Vincent experienced a much greater rate of emigration.¹⁴ The attention given to Jamaica's problems, however, is directed more toward the 20th century, especially to the post-World War II years, and focuses on the disruptions to the economy caused by rapid growth, rural-to-urban migration, and the emigration to the United Kingdom in the 1950s.¹⁵ Consideration has also been given to the purely demographic aspects of population change.¹⁶ Economists, rather than geographers have dominated the field of economic analysis

in Jamaica and have concerned themselves with the 20th century.¹⁷

Trinidad and Tobago, as one of the other major island countries in the British Caribbean, has had relatively greater attention given to its racial problems than to its other demographic and economic characteristics.¹⁸ Niddrie has contributed a substantive geographical study of Tobago, which takes account of the physical environment, the historical and present-day patterns of land use, and distribution of population, while Kingsbury's monograph is a straightforward description of the economic geography of Trinidad and Tobago.¹⁹

Those who have studied the economy and the population of Barbados have, with few exceptions, limited their analysis to the mid-20th century and have not considered the historical geographic aspects of fluctuations in the national economy and changes in population size, growth, and composition.²⁰

Studies of the other former British West Indian colonies have a greater representation among geographers, who have examined the historical and cultural aspects of settlement and cultural landscapes,²¹ the population in the 20th century,²² and the geography of trade and commerce.²³ Economists, sociologists, and demographers have usually considered the contemporary situation,²⁴ with only a few providing an historical perspective.²⁵

General Studies of the West Indian Economy and Population

Among the economic and social studies of general application to all parts of the British Caribbean region, several are valuable for their descriptions and statistics

relating to the period of slavery. Ragatz's works documenting the decline of plantation slavery²⁶ and William's interpretation of the role of slavery in the development of English industrialization are noteworthy sources.²⁷ Deerr's volumes provide detailed production and price data covering the world's sugar industry,²⁸ and Beachey's book supplies an excellent account of the fortune of the British West Indian sugar industry in the last half of the 19th century, including a valuable discussion of the West Indian Encumbered Estates Act.²⁹ Other references offer interesting insights into the production of sugar cane in the West Indies and the social and economic problems which characterized the post-slavery era, but nearly all their authors are historians.³⁰

The majority of studies that describe economic conditions focus primarily on the post-World War II years, when the British colonies were assessing their economic development. Some were of a general nature,³¹ although most were concerned with the contemporary situation of the various primary products that formed the foundation of so many West Indian countries. The banana trade has been a major subject for analysis,³² owing to its relatively recent establishment in the Eastern Caribbean, and it is followed by studies of the other traditional commodity exports—for example, sugar, cotton, and citrus.³³ Tourism has become increasingly important in the Caribbean, especially after the Cuban revolution and the dissolution of the West Indian Federation. The smaller islands have come to consider tourism as a source of income mainly because of their inherent natural beauty.³⁴

The general studies of West Indian population include those that analyze the cost of slaves, the importations of East Indians into the Eastern Caribbean, and the contemporary race and color problems which evolved from the hierarchical societies of slavery and post-slavery years.³⁵

Roberta, and other scholars, have continued to provide a steady stream of articles providing general surveys of the demographic problems in the West Indies.³⁶ In an attempt to provide answers to the problems of improving the social conditions among West Indians, Erickson has examined theories that purport to explain population growth in one of the few book-length studies of West Indian population.³⁷

Another major center of attention for researchers of West Indian problems has been migration. Proudfoot's monograph on intra-Caribbean movement is one of the earliest to deal with this phenomenon.³⁸ In one of the few geographic studies of West Indian demographic problems, Lowenthal analyzes the migration streams from the point of origin to show the effects on the non-migrating population.³⁹ A more recent type of emigration found in the late 1960s—that of the movement of young females to Canada as domestic servants—is examined by Henry.⁴⁰

The mass movement of West Indians to the United Kingdom following the Second World War, in response to a labor shortage in the mother country, and later the collapse of the West Indian Federation, bringing to an end the much vaunted dream of intra-Federation labor migration, drew attention to the

"push" and "pull" forces of international migration and the problems that developed in Britain with the entrance of "colored" workers.⁴¹

Laatly, there are the demographic statistical studies that are basic to any analysis of West Indian populations in the 20th century. Kuczynski produced a detailed survey of population data, from 1921 to 1946, that encompasses all of the former British West Indian colonies and includes a discussion of each territory's census administration.⁴² The Census Research Programme, established at the University of West Indies in Jamaica, has provided abridged life tables for the British West Indies for 1946 and 1951 and complete life tables for 1960. In addition, the same organization has estimated the age, sex, and migration balance for the years between 1946 and 1960.⁴³

Summary of the Economic and Population Literature

In general, there have been relatively few geographers who have studied the former British West Indies, especially from an historical economic and population viewpoint. The bulk of the work on the region's problems has been contributed by economists, demographers, sociologists, and historians, who have been more concerned with conditions after the Second World War than with those of the past few centuries, although the roots of many of today's problems lie in the past. The tendency has been toward a regional view when a long time perspective is used. An obvious gap in the literature needed

filling, so that this study is an attempt to describe as fully as possible the factors that have shaped and guided the fortunes of the export economy and the subsequent variations in population size, growth, and composition.

The Organization of the Study

Preceding the main body of the study, there is a brief survey of the physical setting. The main text is divided into two parts. In Part I, the economy of St. Vincent is reconstructed and described according to the principal export commodities. Chapters III and IV describe the establishment, growth, and eventual failure of St. Vincent's sugar industry, from 1763 to 1902. In Chapter V, the major and minor cash-crop industries that subsequently replaced sugar cane exports are examined, starting with the 19th-century expansion of the arrowroot starch industry and ending with the more recent success of banana production in the 1950s.

Part II is concerned with the changing demographic situation in St. Vincent. In Chapter VI, there is a discussion of the changing size and rate of growth of the population, from 1763 to 1960, with the emphasis on the migration that has affected the island in the last century and a half. Chapter VII examines the composition of the Vincentian population, stressing variations in age, sex, race, rural-urban composition, and occupational status of the population. Most of this analysis is confined to the years included in the censal history of the island, from about the middle of the 19th century to 1960.

The final chapter is devoted to a recapitulation of the major economic and population changes in St. Vincent and the connections that bind them.

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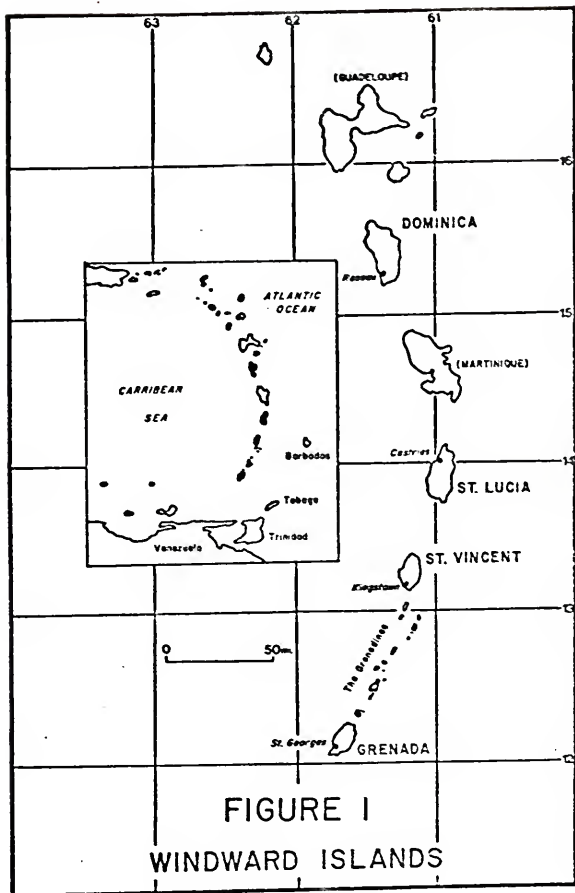
CHAPTER II

THE PHYSICAL ENVIRONMENT

The setting for this study is the small West Indian island of St. Vincent, located in the southern Lesser Antilles at latitude 13°N. and longitude 61°W. (See Figure 1.) Roughly elliptical in outline, the "main" island's greatest length is 18 miles north to south and 11 miles west to east at its widest point. Encompassing an area of 133 square miles (excluding its Grenadine dependencies), St. Vincent is, therefore, the third largest island in the former British Windward Islands.¹ This chapter will briefly survey the major features of the physical environment of St. Vincent.

The Physical Landscape

St. Vincent belongs to a geologically young group of volcanic islands constituting the southern arc of the Lesser Antilles.² This volcanic arc stretches from Saba Island (17°N.) at the northern end of the Lesser Antilles to Grenada (12°N.) at the southern extreme, skirting the eastern margin of the Caribbean Sea. (See Figure 1.) The "main" island of St. Vincent is separated from its Grenadine dependencies to the south by an ocean trough 3,700 feet deep and from St. Lucia to the north by another channel varying between 1,800 and 3,100 feet in depth.³



The "main" island of St. Vincent is composed of the exposed surface of a series of submerged volcanoes which have developed on a tectonic arc and have been built up from about 5,000 feet below sea level.⁴ The St. Vincent Grenadines represent a group of exposed erosional remnants of older volcanic formations which have developed on a narrow bank now submerged in 100 to 200 feet of ocean.⁵ The Grenadines are low-lying islets with their highest elevations less than 1,000 feet above sea level.⁶

The structure of the "main" island is composed of a north-south chain of volcanoes, with the oldest extinct remnants situated in the southern half of the island. Today, only the Soufrière mountain, which encompasses the northern third of the island, remains as an active volcano. It has erupted four times in recorded history—in 1718, 1812, 1902, and, most recently, in 1971.⁷ Although lava is found in St. Vincent, it is confined mostly to the older southern half of the island, as the more recent Soufrière eruptions appear to have been of the explosive variety, discharging scoriae, ash, and boiling mud.⁸

Numerous peaks are found dotting the "main" island's central range of mountains, evidencing the volcanic structure of the island. From north to south, the main peaks are: the Soufrière (4,048 feet); Richmond Peak (3,528 feet); Mt. Brisbane (3,058 feet); Grand Bonhomme (3,193 feet); Petit Bonhomme (2,481 feet); and Mt. St. Andrew (2,413 feet). (See Figure 2.)

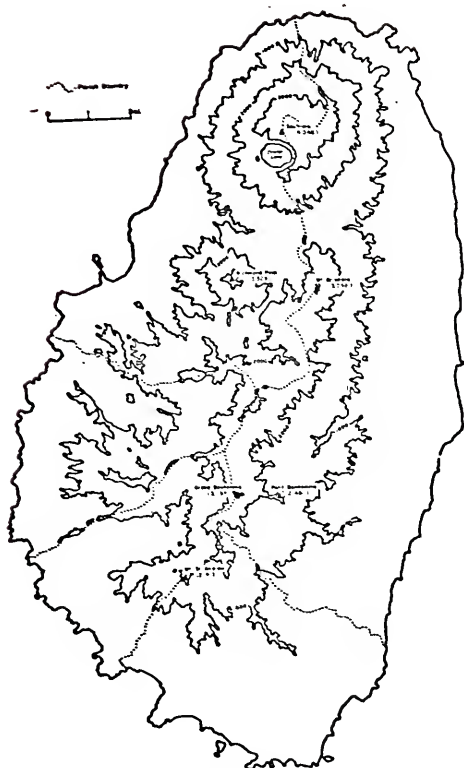


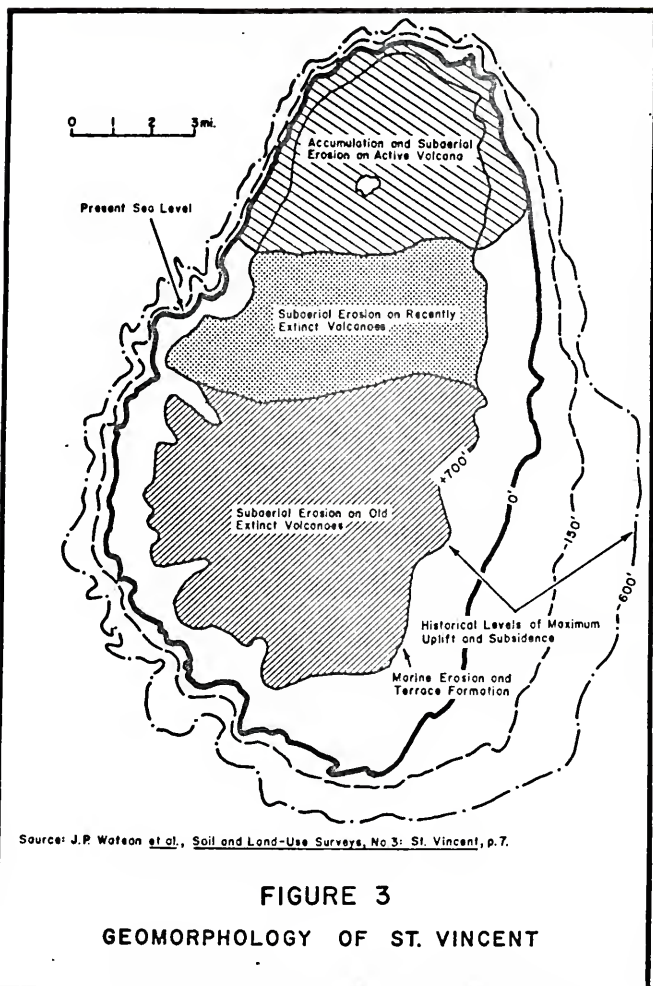
FIGURE 2
PHYSICAL FEATURES OF ST. VINCENT

To the observer, the Soufrière volcano presents the classic profile of a young volcano—cone-shaped, with steep slopes incised by streams forming knife-edged ridges and deep narrow valleys. There is abundant evidence of the recent violent activity of the Soufrière. Covering the slopes and surrounding coasts is a mantle of ash, scoriae, and large ejecta discharged by the 1902 eruption, which, in some places, is only lightly hidden by regenerated vegetation.

The "main" island is heavily dissected and is composed of many steep-sided transverse valleys that broaden as they approach the coast. In its geologic history, St. Vincent has experienced both uplift and submergence. Four epochs of eustatic changes in sea level have been discerned, with a maximum uplift of 600 feet and a maximum submergence of 700 feet from present sea level. (See Figure 3.) The island's coast, in effect, has fluctuated 1,300 feet in elevation.

An east-west profile of the "main" island shows a Leeward (west) coast much steeper and narrower than the Windward (east) coast. Along the Leeward side of the island, the topography is characterized primarily by highly dissected ridges and valleys extending down to the water's edge, making land transportation very difficult on the island's present road system. On the Windward coast, however, the relief is more gently rolling and land transportation is more easily facilitated as steeply sloping roads are absent.

The Windward coast receives a continuous erosional pounding from waves set up by the steady Northeast Trade winds



and, therefore, the headlands and bays have been smoothed off, affording poor harbor protection from heavy winds and seas. By contrast, the Leeward coast is scalloped with numerous deep embayments sheltered from wind and waves. It was on the west and southwest coasts, with their many safe harbors for sailing ships, as nearly everywhere in the Caribbean, that the earliest European settlements were established.

The Climate

St. Vincent's climate is tropical, with neither oppressively hot days nor uncomfortably cool nights. Despite its tropical location (13 degrees north of the Equator), the island's weather is influenced by the surrounding marine environment which acts to modify daily temperatures. The average annual temperature is about 80°F., with average monthly maxima of 85°F. and average minima of 71°F.⁹ The highest daily temperatures, near 90°F., are usually reached in the early afternoons during the "wet" season (or "summer"), from June to December. Such temperatures, however, are ameliorated by the Northeast Trade winds, especially on promontories along the Windward coast. In the upper reaches of the Leeward valleys, the high temperature and humidity, coupled with the lack of breezes, result in oppressive conditions for the traveler.

Variations in rainfall more than in temperature mark the change in seasons; "summer" and "winter" correspond to the "wet" and "dry" periods, respectively. The average total "wet"

season rainfall (June through December) is about 67 inches, while the "dry" season rainfall amounts to 32 inches. The average total annual precipitation for the "main" island is approximately 100 inches.¹⁰

Precipitation totals vary spatially from an annual average of 60 inches along a one-half mile coastal zone around the "main" island to over 150 inches in the mountainous interior.¹¹ In the general zone of cultivation, which field-work showed to be below 1,000 feet in elevation, rainfall annually averages between 80 and 100 inches.¹²

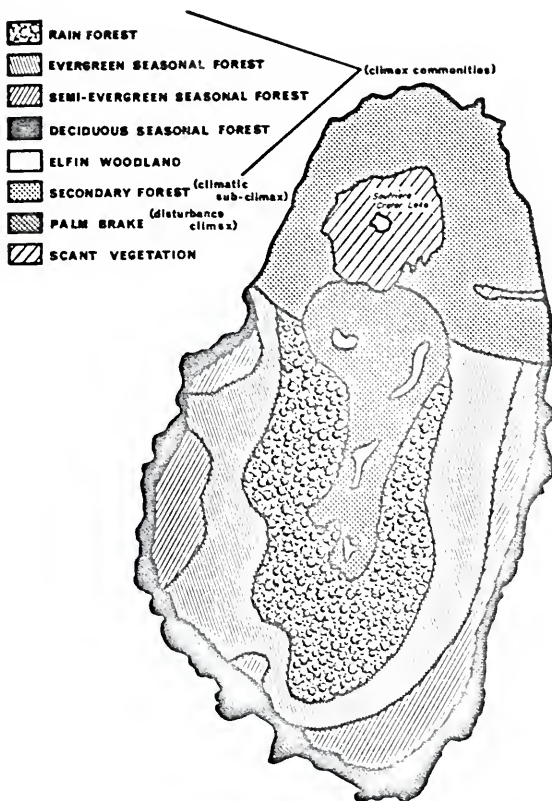
Owing to their small size and low elevation, rainfall is precarious in the St. Vincent Grenadine Islands, and certain months may record no precipitation. The island dependencies for which data are available generally measure about one-half of the rainfall of the "main" island. The annual average rainfall for the Grenadines with meteorological stations (Bequia, Canouan, and Union Islands) is about 49 inches. The driest months (February, March, and April) average slightly more than 1 inch of precipitation each, while the wettest months (June through November) average about 6 inches each.¹³ The low rainfall regime of these islets was an important reason why sugar cane was never extensively cultivated, making cotton the favored crop because of the dry harvesting season. The "wet" season on the "main" island caused damage to the ripening cotton bolls, and therefore cotton was relegated to the drier Grenadines during most of the 19th century.

The Natural Vegetation

Very little undisturbed climax vegetation is found in St. Vincent today.¹⁴ What exists today is located at varying elevations above 1,000 feet, well out of the zone of human activity. The concentric zonation of rainfall (with the heaviest amounts falling in the central highlands) also coincides with the general zonation of vegetation, the only exception being the area surrounding the Soufrière volcano. (See Figure 4.) Most of the land area below the 1,000-foot contour has been affected by cultivation and settlement. Above that elevation, the natural vegetation is found to be in various stages of regeneration and approaching climax stage where it has been previously disturbed by natural forces (volcanic eruptions and high winds).

The zones of vegetation are affected, in most places, by climate, but in some locations, soil and exposure to winds are the dominant forces affecting the type of natural plant life. Climax forest vegetation is located at elevations above 2,200 feet, along the central ridge, south of the Soufrière, and is referred to as elfin woodland.¹⁵ Low, gnarled, moss-covered trees predominate near the extinct volcanic peaks in the center of the "main" island. They range in height from 6 to 33 feet, depending upon the degree of exposure to winds. (See Figure 4.)

Below the elfin woodland, at elevations between 1,600 and 2,200 feet, hurricane forest (also called palm brake) vegetation is found. (See Figure 4.) The trees, typically of



SOURCE: J. P. Watson, et al., Soil and Land-Use Survey, No. 3: St. Vincent, p. 8

FIGURE 4
NATURAL VEGETATION OF ST. VINCENT

the palm Prestoea montana variety, form a closed single canopy 40 feet above the ground.¹⁶ This type of forest seems to be a disturbed climax vegetation, resulting from the effects of strong winds which topple the larger trees before climax is reached. The location of the hurricane forest in St. Vincent is on loose, shallow soils on steep slopes, with resultant ease of tree uprooting.¹⁷

In the next lower vegetation zone, between about 1,000 and 1,600 feet in elevation, another area of climax vegetation is encountered—the lower montane rainforest. (See Figure 4.) The altitude of this type of rainforest is low enough to avoid destruction from high winds and high enough to be out of the range of permanent cultivation, although scattered garden plots and charcoal-burning pits are sometimes located here.¹⁸ Trees form two strata at heights of from 10 to 50 feet and 65 to 100 feet and are associated with a shrub layer and a ground layer of ferns, mosses, and tree seedlings.¹⁹

In the lower montane rainforest, nearly all of the trees are evergreen. Toward the lower margins, however, semi-evergreen begin to appear as the weak dry season is experienced at this elevation.

The wet and dry seasonal changes in St. Vincent become more influential toward the coastline. Near the coasts, especially on the Leeward mountain spurs, which are too steep for cultivation, deciduous trees are found. (See Figure 4.)

All of the vegetation on the Soufrière volcano is secondary growth, having regenerated from the total destruction of the

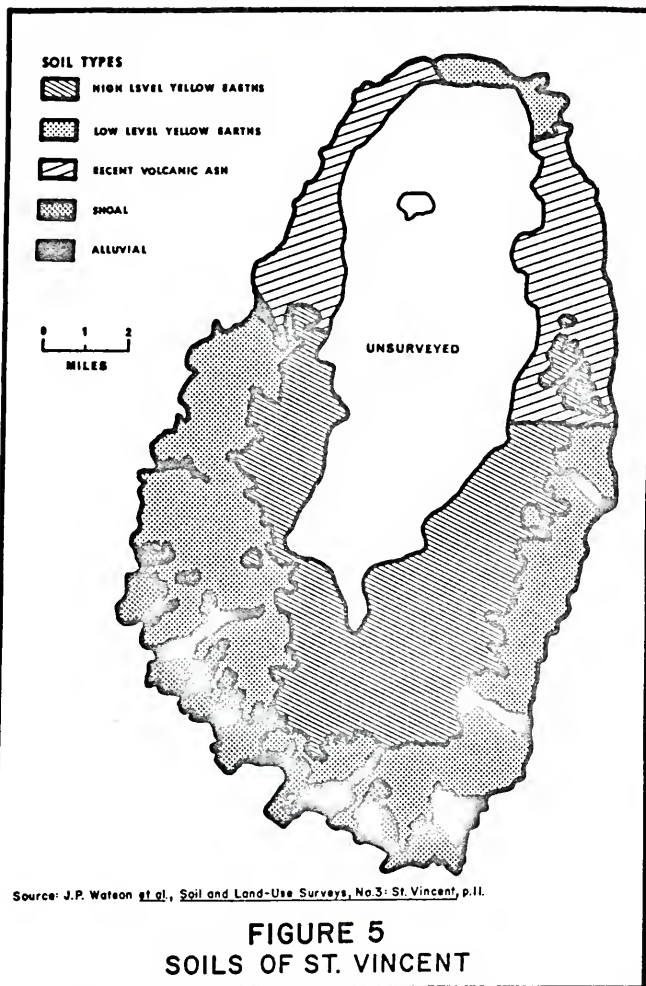
1902 eruption, when incandescent avalanches burned and buried all plant life.²⁰ Regenerated secondary rainforest is found above 1,200 feet, on the steep slopes above permanent cultivation. Trees range in heights from 50 to 90 feet and decrease in size with increasing elevation. At the 2,000-foot level, trees are only 10 to 13 feet high and are gnarled by wind on exposed ridges.²¹

Above the 2,400-foot contour on the Soufrière volcano, trees are replaced by stunted ferns and grasses (which are valued by some Kingstown giftshop owners as tourist items). From the 3,000-foot elevation to the highest levels of the volcano, distinct alpine and tundra vegetation grow and are characterized mainly by lichens.²²

Soils

According to Hardy, Robinson, and Rodrigues, the soils of St. Vincent can be classified into four major groups: a) Yellow Earths; b) Recent Volcanic Ash Soils; c) Shoal Soils; and d) Alluvial Soils.²³ (See Figure 5.) The most extensive soil type is the zonal Yellow Earths.²⁴ These are found on the older land in the southern half of the "main" island and are deeply weathered, highly leached, acidic, lacking in phosphate, and of medium-low fertility.²⁵

Climate is the primary determinant in the development of the Yellow Earths, and the concentric climatic zonation of the "main" island, to a large extent, describes the location of the soil group.



Two phases of Yellow Earths exist in St. Vincent. The first, termed High Level Yellow Earths, is found above the 600-foot contour level and has been formed by the higher rainfall at this elevation and a longer exposure to sub-aerial weathering. When the island was formerly submerged, the land above the 600-foot contour remained exposed to weathering, whereas the area below this level was under water.²⁶ The effect was to create a "younger" and more friable soil below the present 600-foot level when the island was subsequently uplifted. This younger phase of soil is called Low Level Yellow Earths.²⁷

A second major soil group has been classified as Recent Volcanic Ash and is confined mainly to the slopes of the Soufrière volcano. (See Figure 5.) The azonal soils (lacking apparent profile layers) in this group have developed over the ash deposits of the volcano, especially the ash of the 1902 eruption and are coarse and cindery in texture, well drained, acidic, and of medium fertility.²⁸ The heavy rainfall and steep slopes of the Soufrière result in rapid erosion of the Recent Volcanic Ash Soils.

Another recognized soil group is called the Shoal Soils, which are identified with the Hydromorphic soils formed over extinct volcanic cones in the southern and southeastern parts of the "main" island.²⁹ (See Figure 5.) This soil group is considered intrazonal, owing to excessive moisture caused by locally impeded drainage and becomes sticky in the wet season and cracked in the dry season.

The remaining major soil group includes Alluvial Soils and is found most commonly along the valley floors of the southern coastal area. Such soils are absent in the northern third of the island, near the Soufrière. (See Figure 5.) They have developed on parent material deposited by streams flowing out of the interior and on local erosional material from the adjacent hillsides. Fertility varies according to the types of parent material from which the alluvial deposits were derived.

Several minor soils occur but are uncultivable owing to their infertility or remote location. These have been classified as Aeolian Soils (formed on wind-blown material mixed with Yellow Earths), Beach Deposits (mostly black volcanic sand without a developed profile), and Skeletal Soils (unproductive soils of hard rock fragments on steep slopes).³⁰

Agricultural Land Capability in St. Vincent

The St. Vincent soil survey undertaken in 1957 and 1958 included a land capability classification, in which the soils in the surveyed area were grouped into seven types of capability classes for the production of commercial crops, forage plants, and forest trees.³¹ An indication of the difficulty of recommended cultivation in St. Vincent is evidenced by the small amount of Class I land. Such land can be farmed without limitations, that is, it is relatively level, with deep fertile soil, and possesses good physical properties. The degree of slope in the "main" island was considered as the main factor in assessing land capability, and this factor alone reduces

St. Vincent's Class I land area to 2,000 acres or slightly more than 3 per cent of the surveyed area.³² (See Table 1.)

By farming land up to 20° of slope (Classes I, II, and III land), no more than about one-quarter of the surveyed land area is available, and this entails using Class III land which suffers greatly from the twin adversities of erosion and boulders scattered in the fields. (See Table 1.) In general, nearly 75 per cent of St. Vincent's area has been classified as marginal for "optimum" land use.³³ Practical considerations, however, such as agricultural population density and commercial cash crop forces, have necessitated the use of much land that otherwise should have remained uncultivated.³⁴

Summary

This chapter has described the physical environment of St. Vincent. Owing to the extremely rugged topography in the "main" island, a great variety of climatic subtypes, soil groups, and classes of natural vegetation are found over relatively short distances. Cultivation is restricted, in part, by soil fertility and degree of slope of the land and is generally confined to the area below 1,000 feet in elevation. Despite the spatial differences in land capability, cultivation has historically been found at nearly all locations below the 1,000-foot contour. Foreign demand for particular export products has had more of an influence than the suitability of the land in determining the specific mix of cash crops produced by St. Vincent's agricultural laborers.

TABLE 1

LAND CAPABILITY CLASS, ST. VINCENT

Land Capability Class	Most Suitable Use	Acreage
I. Slope limits 0-5°	Suitable for cultivation with almost no limitations	2,000
II. Slope limits mainly 5-20° and some level land of less favorable soils	Suitable for cultivation with moderate limitations	12,000
III. Slope limits 5-20°	Suitable for cultivation with moderate limitations	2,000
IV. Slope limits 20-30°	Marginal for cultivation due to erosion risk but suited to tree crops, pasture, and forest	10,000
V. No slope limit but mainly very steeply sloping land (over 30°)	Suitable with only slight limitations for tree crops, pasture, and forest and unsuitable for cultivation	20,000
VI. No slope limit; shallow soil over hard rock	Severe limitations for tree crops, pasture, and forest	6,000
VII. No slope limit	Unsuitable for agriculture; should be left under natural vegetation	6,000

Source: J. P. Watson, J. Spector, and T. A. Jones, Soil and Land-Use Surveys, No. 3: St. Vincent (Part of Spain, Trinidad: The Regional Research Centre of the British Caribbean at The Imperial College of Tropical Agriculture, 1958), Table 12, p. 43 and p. 34.

NOTES TO CHAPTER II

¹St. Vincent consists of the "main" island (133 square miles) and a string of islet dependencies, the Grenadine Islands (17 square miles). The other islands in the former British Windward Islands are, in order of decreasing size: Dominica (305 square miles); St. Lucia (238 square miles); and Grenada, with its Grenadine dependency, Carriacou (133 square miles).

²The northern series of islands in the Lesser Antilles are geologically older, low-lying, and formed on submerged inactive volcanoes, capped with limestone. See: Charles Schuchert, Historical Geology of the Antillean-Caribbean Region (New York: John Wiley & Sons, Inc., 1935), p. 746. For a more recent discussion of Caribbean geology (particularly the Greater Antilles and the northern Lesser Antilles), see: K. M. Khudoley and A. A. Meyerhoff, Paleogeography and Geological History of Greater Antilles (Boulder, Colo.: Geological Society of America, 1971).

³Schuchert, Historical Geology, p. 747.

⁴Ibid.

⁵F. R. C. Reed, The Geology of the British Empire (2nd ed.; London: Edward Arnold & Co., 1949), p. 253.

⁶Ibid.

⁷Ibid. Although the last violent eruption was in 1902, there were gas emissions in 1945 and more recently, in late 1971, there was an extrusion of molten rock in the crater lake, resulting in the formation of an island over 200 feet high. The last time an island was found in the Soufrière's crater lake was prior to the 1812 eruption. In the explosive eruption of that year, the crater island completely disappeared. For a description of the 1971 eruption, see: Harold M. Schmeck, "Volcano Worries West Indian Isle," New York Times, December 20, 1971; and "Caribbean Volcano is Studied," The Times of the Americas, December 8, 1971.

⁸Reed, Geology of the British Empire, p. 253.

⁹Government of St. Vincent, Report on the Department of Agriculture for the Years 1962-1964 (Kingstown: Government Printing Office, 1968), Appendix II, pp. 78-80.

¹⁰Ibid., Table I, p. 1.

¹¹Janet D. Momsen, Report on a Banana Acreage Survey of the Windward Islands (London: Ministry of Overseas Development, 1969), p. 31. The maximum rainfall in the interior central highlands is unknown, owing to the absence of meteorological stations.

¹²J. S. Beard, "The Progress of Plant Succession on the Soufriere of St. Vincent," Journal of Ecology, XXXIII, No. 1 (October, 1945), p. 1.

¹³Report of the Department of Agriculture, 1962-1964, Appendix II, pp. 78-80.

¹⁴Climax vegetation refers to the last stage in the process of plant succession within a stabilized climatic area. See: Vernon C. Finch, et al., Physical Elements of Geography (4th ed.; New York: McGraw-Hill Book Company, 1957), p. 410.

¹⁵Beard, "Plant Succession," p. 5. J. P. Watson et al., Soil and Land-Use Surveys, No. 3: St. Vincent (Port-of-Spain, Trinidad: The Regional Research Centre of the British Caribbean at the Imperial College of Tropical Agriculture, 1958), p. 8; and J. S. Beard, "The Classification of Tropical American Vegetation-Types," Ecology, XXXVI, No. 1 (January, 1955), p. 94.

¹⁶About 75 per cent of the hurricane rainforest is made up of the palm Prestoea montana. See Beard, "Plant Succession," p. 4.

¹⁷Ibid.

¹⁸Ibid., pp. 3-4; also Beard, "Tropical American Vegetation-Types," p. 94.

¹⁹Beard, "Plant Succession," pp. 3-4.

²⁰Ibid., p. 6.

²¹Ibid., p. 7.

²²Ibid.

²³In addition, several minor azonal soils were recognized: Aeolian Soils, Beach Deposits, and Skeletal Soils. See: F. Hardy, C. E. Robinson, and G. Rodrigues, Agricultural Soils of St. Vincent, Studies in West Indian Soils, No. 8 (Port-of-Spain, Trinidad: Government Printer, 1934), pp. 1-4.

²⁴The term zonal refers to soils whose characteristics are determined mainly by the climate in which they developed. See: Harry O. Buckman and Nyle C. Brady, The Nature and Properties of Soil (6th ed.; New York: The Macmillan Company, 1966), p. 298.

²⁵Watson, Spector, and Jones, Soil Survey, St. Vincent, pp. 20 and 22-24.

²⁶Ibid., p. 21.

²⁷Ibid., p. 20.

²⁸Ibid., p. 27.

²⁹Ibid., pp. 20-21 and 27.

³⁰Ibid., p. 21.

³¹Ibid., p. 34.

³²There were 58,000 acres of land surveyed out of approximately 85,000 acres in the "main" island.

³³The specialists who classified St. Vincent's soils in 1958 distinguished between "optimum" and "practical" land use classes. "Optimum" land use recommendations were derived to preserve from further destruction the island's soils. "Practical" land uses could not be recommended because such considerations were economic and sociological rather than "of the land." See: Watson, Spector, and Jones, Soil Survey, St. Vincent, p. 37.

³⁴Ibid.

PART I. THE EVOLUTION OF THE ECONOMY
OF ST. VINCENT

CHAPTER III

THE SUGAR INDUSTRY OF ST. VINCENT, 1763 TO 1838

For nearly two centuries, the economy of St. Vincent has followed a classic path of monoculture, or dependence upon a single export crop. Although the island was noted for the variety of crops it produced during the earliest era of European occupation, the formal acquisition of St. Vincent by Great Britain saw a rapid change in the land tenure arrangements and pattern of cultivation. Sugar early became the mainstay of the colony and laid an indelible imprint on the socio-economic structure which persists even to the present day. To understand the economic geography of St. Vincent is to understand the early history of sugar cane cultivation. What follows is an historical account of the settlement of St. Vincent, tracing the succession of events leading to the rise of the sugar cane industry and the emancipation of slaves.

Early Settlements in St. Vincent, Pre-1763

The earliest known inhabitants of St. Vincent were the Amerindian Arawaks and Caribs. By the time of Columbus' discovery of the West Indies, the peaceful Arawaks had been driven out of the Lesser Antilles by the more aggressive Caribs. The latter, although more adept at fishing and seamanship than the

agricultural Arawaks, nonetheless engaged in a similar type of subsistence economy, with cassava as the staple food crop.

Among the aboriginals in St. Vincent at the advent of early European attempts to settle the island were the so-called "Red" and "Black" Caribs. The Red Caribs were apparently the Amerindian people who had moved northwards through the Lesser Antilles from their cultural hearth in the western part of the Amazon basin. Some of St. Vincent's Red Caribs had mated with the survivors of an African slave ship from Guinea, forming the numerically dominant race of Black Caribs found when Europeans first began visiting the island.

Before Great Britain obtained control of St. Vincent, French priests and, later on, a few French planters were known to have landed along the Leeward (or western) coast, thus beginning the first recorded European settlements.¹ These hardy individuals came from Martinique and Guadeloupe with the aim of escaping the conventions of metropolitan rule, a phenomenon repeated many times during the 16th and 17th centuries.² A French military expedition, allied with the Red Caribs, tried to subdue the Black Caribs of St. Vincent in 1719, and although it failed, its members were, nonetheless, invited by the victorious Black Caribs to remain.³ These Frenchmen established their small farms along the sheltered west coast near the Red Carib settlements. The Black Caribs, found along the southern and Windward (or Eastern) coasts, were more familiar with the British than the French, as

they had encountered woodcutters from British Barbados who periodically came to St. Vincent and St. Lucia to collect timber.

The recorded history of settlements in St. Vincent is sparse for the period between 1719 and 1748, when the Treaty of Aix-la-Chapelle was signed, concluding the War of Jenkins' Ear. Among the provisions of the 1748 treaty was one confirming the neutral status of Dominica, St. Lucia, St. Vincent and its Grenadine possessions, and Tobago. European nations were to be withdrawn from these islands, leaving them in the possession of the Caribs.⁴ Naturally this provision was difficult to enforce, and interpreting the population data estimated by the head of the British commission for the sale of lands in St. Vincent at the end of the Seven Years' War in 1763, it was largely disregarded by the French.⁵

The Seven Years' War (1756 to 1762) formalized the continuous rivalries in the West Indies, especially between France and Britain. By the Treaty of Paris (1763), the contestants once again revised ownership of the Lesser Antillean islands. The older, established British sugar islands exerted their power to have Guadeloupe and Martinique, captured by the English during the war, returned to France, in exchange for French Canada.⁶ That such a transaction should be suggested indicates the political and economic value placed upon the Caribbean sugar islands at this historical moment. The English planters had no wish to see their monopoly of the home sugar market weakened by

the introduction of sugar grown more economically from the occupied French islands. This could only lead to lower prices for the produce of the more exhausted soils in the older British islands. Of the neutral islands of 1748, Britain took possession of Dominica, St. Vincent and the Grenadines, and Tobago, now called the "Ceded Islands," as its share of the war spoils.

The Advent of the Sugar Industry, 1764 to 1800

Immediately after the accession of St. Vincent by the Treaty of Paris, Britain declared all land in the island to be Crown property and embarked upon a land survey in early 1764. Cognizant of the excesses of poor land management in the older British islands, the terms of sale of property in St. Vincent and the other Ceded Islands were such as would foster a yeomen class of farmers. Large estates were to be avoided and speculation checked.⁷

Land was to be alienated by sale, in fee-simple, to British subjects only. The French who numbered about 1,300, along with their 2,700 slaves,⁸ were permitted to remain on their property for a maximum of 40 years but had only leasehold rights.⁹

As a means of discouraging large estates, the maximum acreage limit of a parcel of land was set at 500 acres. The conditions of sale were as follows: (1) 20 per cent of the price in down payment, (2) 10 per cent each year for the next 2 years, and (3) 20 per cent a year for the subsequent 3 years. Each year 5 per cent of the original size allotment had to be cleared until a total of 50 per cent of the area was ready for cultivation. As

a means of checking speculation, fines were imposed for delays in clearing the land according to schedule. In addition, 1 white man or 2 white women were required for each 100 acres of cleared land and, likewise, fines were levied for failure to maintain this man-land ratio. In lieu of services from the owners, an annual quitrent of 6d per acre was required.¹⁰ As an inducement for poor white settlers to take up farming on the island, 800 acres in each parish were to be allotted to this immigrant class. Land for poor settlers ranged in size from 10 to 30 acres and was inalienable for at least the first 7 years.¹¹

Land parcels were surveyed in 1764 by a very able surveyor, John Byres, and were auctioned in England. One very large parcel was omitted from the initial auction because of a prior grant. A hero of the late Seven Years' War, General Robert Monckton who captured St. Vincent and Martinique, was given 4,000 acres on the south Windward coast between what is today Biabou Village on the north and Stubbs Village on the south, extending inland to the headwaters of the rivers flowing down the Mesopotamia Valley. (See Figure 6.) Monckton never settled his land but sold it instead for £30,000. The auction of land earned for the British Treasury £162,854 on the sale of 20,538 acres, an average of £7.16s 0d per acre.¹²

As a result of the first sales, no parcels exceeded 500 acres as a single unit, except the specified land grant which was eventually resold. Some buyers bought more than 1 parcel

- Tracts (A) through (H) — Land granted to Caribs by Treaty in 1773
 Tract (D) — Land granted to Gen. Robert Monckton in 1764
 Tract (C) — Caribs' land undisposed of in 1764, occupied after Carib War in 1773
 Tract (E) — Caribs' land undisposed of in 1764, granted to John Kennedy in 1790
 Col. Etherington's land grant dated 1778
 Parish boundaries

0 1 2 miles

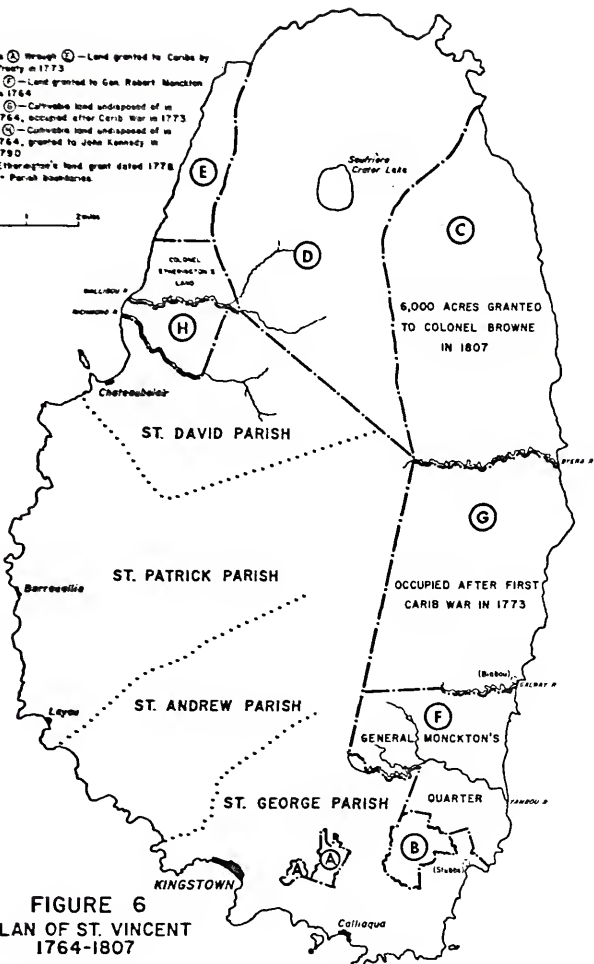


FIGURE 6
PLAN OF ST. VINCENT
1764-1807

but the largest single land unit sold by the Crown was 471 acres. This was purchased by a man named Byres, possibly the chief surveyor of St. Vincent. While most of the parcels were under 200 acres each, there were 19 out of a total of 171 allotments surveyed for outright sale that were larger than 200 acres in extent.¹³ Only 3 of the 114 French leasehold properties were in parcels larger than 100 acres, the largest surveyed allotment being 135 acres.¹⁴

The alienation of St. Vincent's land was accomplished, as nearly as possible, according to design. As soon as immigration began, however, the trend was toward the agglomeration of land into large estates. The more affluent and more successful sugar planters began to acquire property from the small farmers. Many of the early settlers came from the older English islands and brought with them a knowledge and determination to reestablish themselves as sugar cane growers on virgin soil.¹⁵

The early French settlers had planted their lands with a variety of commercial and subsistence crops—coffee, cocoa, cotton, tobacco, indigo, and ground (food) provisions—but had little interest in large-scale sugar cane monoculture in St. Vincent.¹⁶ This tendency may be partly explained by the small-size land parcels which the French were accustomed to cultivating in the island. If the land were to be cultivated in small farm units, there would be much less expense for the new settler than if a large sugar cane enterprise were to be undertaken, necessitating costly equipment, buildings, and many laborers, in this case, slaves.

One of the best known historians of the sugar industry, Noel Deerr, gives some indication of how rapidly St. Vincent's sugar production rose by citing a mere 35 tons of sugar in 1766 and 1,930 tons in 1770. (See Figure 7.) Throughout the 1770s, the total production of St. Vincent fluctuated between 3,130 tons in 1774 and 2,049 tons in 1779. Until 1771, all sugar cane cultivation was restricted to the European-held parts of the island. The Black Carib reserve lands along the south coast and southern Windward coast were, of course, tempting areas for ambitious planters who wanted to bring these soils under sugar cane. English cultivation before the First Carib War (1772 to 1773) had been south of the Yambou River, which divided Monckton's Quarter, the land grant unused at this time. (See Figure 6.) This was according to the terms of the Treaty of Paris of 1763. An 18th century historian, Coke, noted that British resident planters wanted to enlarge the area of sugar cane northward beyond the Yambou River, even obtaining rights to land grants in formerly Carib regions.¹⁷ To ensure that the white settlers honored the Carib reserves, however, survey lines were laid out along the boundaries, which required a road to be constructed into the reserve itself.¹⁸ Predictably, misunderstandings led to fighting between the English and the Caribs over the survey road, compelling the use of 2 British regiments from the North American colonies to defeat the Caribs in a series of campaigns beginning in 1772 and ending with a peace treaty in February, 1773.

The Treaty of 1773 with the Caribs legalized the land seizures beyond the Yambou River. A new reserve for the Amerindians

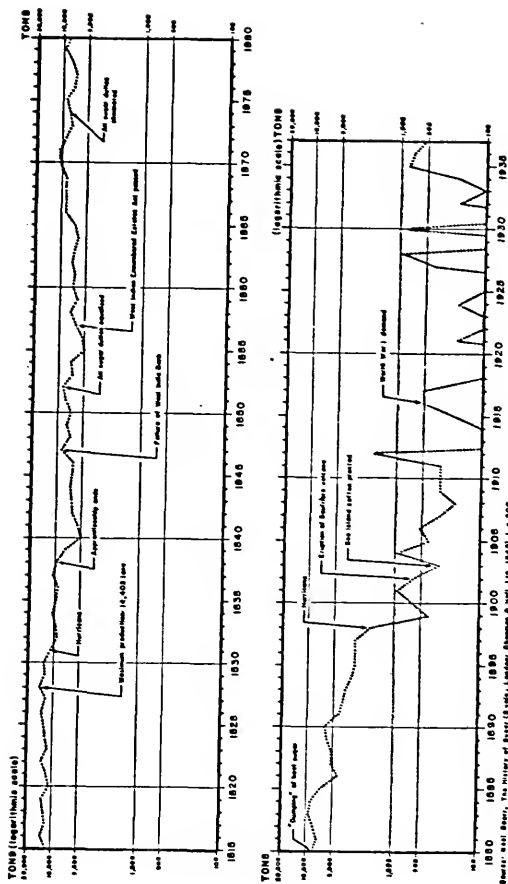


FIGURE 7
SUGAR PRODUCTION OF ST. VINCENT, 1815-1937

was thereafter established approximately 5 miles further north. The new boundaries for Carib land (or the "Carib Country") became the Byera River on the Windward coast and a line running from the headwaters of the Byera northwest to the upper reaches of the Wallibou River on the north Leeward coast. Except for the relatively level valley lands along much of the Windward coast, the greater part of the Carib Country lands encompassed inaccessible or mountainous land in the interior, unfit for commercial cultivation. (See Figure 6.) This action silenced the Caribs by locating them in the distant reaches of the island, well away from the settled estates for the most part.

In the late 1770s, the lieutenant-governor of St. Vincent, Valentine Morris, advocated the free entry of French immigrants because of their ability to cultivate a variety of crops, especially coffee, successfully on a single holding. Such action was an official expression of the intent to encourage small-scale farming. Unfortunately, the exhaustion of the old French coffee lands in the Leeward valleys, together with the prohibition of sale of fresh land to them, forced many discouraged Frenchmen to leave the island and seek refuge nearby on the islands of St. Lucia, Martinique, and Guadeloupe.¹⁹ As the French departed and more land was turned to sugar cane in response to a rise in the price of sugar in the London market, the exports of coffee and cocoa fell. (See Figure 8.)

Between 1776 and 1779, the Government further disposed of 2,156 acres of new land, most grants being less than 100 acres in size.²⁰ Disregarding the new Carib boundaries set down in

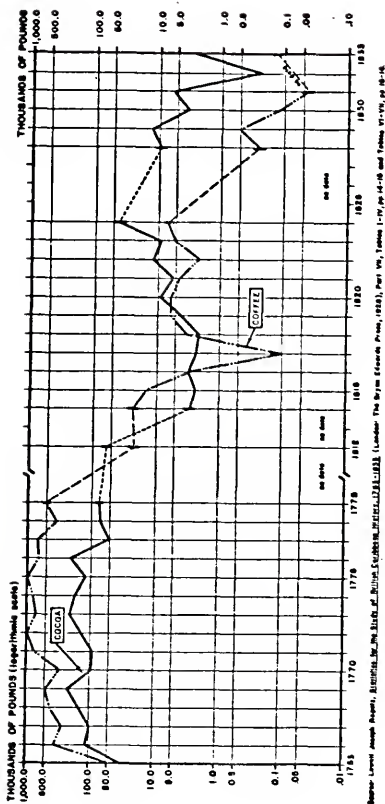
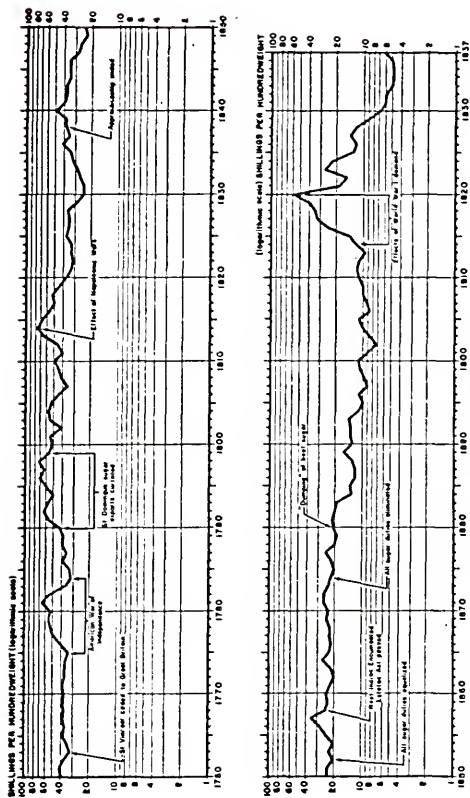


FIGURE 8
VOLUME OF VINCENTIAN COCOA AND COFFEE
EXPORTS TO GREAT BRITAIN, FOR
SELECTED YEARS, 1765-1833

1773, the governor also gave a large tract of land on the northwest coast to a Royal American officer to command the British garrison guarding St. Vincent against French attack.²¹

Before the impact of the new sugar lands could be felt in St. Vincent's export trade, the American Revolution broke out, causing considerable consternation among British merchant shippers and affecting the exports of all the British West Indian islands. After declaring war on Britain in 1778, France seized several British islands, including St. Vincent, in 1779. From 1779 to 1783, the island was under French governorship during which time land transactions were still carried out as though there had been no change of metropolitan control.²²

Commercial cash crop production during the 1780s is obscured by the lack of data, but it can be assumed that the troubled times adversely affected production for export (not necessarily for local consumption) as did a destructive hurricane in 1780. The high price of sugar in London in 1781 was useless to Vincentian cane growers under French rule, as their sugar could not reach the English market. Local administrative institutions, however, remained intact under the governorship of France. By 1784, when St. Vincent had returned to British rule, the raw sugar price in London had dropped by 50 per cent from the 1781 level, reflecting the entrance of stock-piled British West Indian sugar into the home market. (See Figure 9.)



Source: *Head Office, The History of Sugar* (2 vols, London: Chapman & Hall, 1850), II, pp. 480-93.

FIGURE 9
LONDON PRICE OF SUGAR, 1760-1937

The effects of the French Revolution (1789 to 1795)

directly and indirectly assisted the Vincentian sugar economy. The French in the Lesser Antilles began propagandizing among the Caribs in the British islands, including St. Vincent, assisting them with arms and officers in their depredations on isolated sugar estates. Burning of cane fields and mill works began in St. Vincent in 1789 and culminated in a full-scale war in 1795 between British regular and militia troops and the Caribs. The Amerindians with their French leaders succeeded in destroying many of the estate mill works on both the east and west coasts of St. Vincent before they were finally defeated in 1797.²³ There is no doubt that conflict would, in any case, have erupted eventually over the planters' desire to use the fertile soils of the Windward coast in the Carib Country reserve established in 1773.

Turmoil in the British and French West Indies during the 1790s led to record prices for raw sugar in London, especially as Saint Domingue's (now Haiti) sugar was withdrawn from the European market. (See Figure 9.) The successful black rebellion in Saint Domingue ruined that island's sugar industry but stimulated the British sugar industry.²⁴ This served as an indirect support to St. Vincent's sugar economy—a guarantee of renewed profits to be made from slave-grown sugar. The direct and major factor which brought the Vincentian sugar economy to maturity was the confiscation of all Carib lands, particularly the well-suited Windward coastal region, along with the physical expulsion

of most of the Black Caribs from the island. The few Indians permitted to remain in the colony were relegated to an isolated reserve of 239 acres in the Morne Ronde area north of the Wallibou River.²⁵ (See Figure 6.) Thus, by the end of the 18th century, St. Vincent had opened up for settlement and cultivation all available fertile land. Crown lands, generally those above 1,000 feet in elevation, remained unalienated. The next phase of St. Vincent's economic history, therefore, began with the official disposition of the Carib lands in the northern part of the island.

The Zenith of the Sugar Industry, 1800 to 1828

From the end of the Second Carib War in 1797, debate ensued among the colonists as to the future use of the valuable Carib Country lands. The traditional viewpoint expressed the by Governor William Bentinck in 1798 encompassed the sale, not the free grant, of these lands to small holders as a hedge against the development of large estates. This was envisioned as an effective way of populating an empty region rapidly, for otherwise the great estates would exclude the many small white settlers whom the Government wished to attract in order to establish a loyal British community ready to serve in the island's defense.²⁶ Some voices on the other hand opted for the free distribution of these lands to the sufferers and veterans (or their widows) of the late Indian war.

It was only after the arrival of a new governor, Henry Bentinck,²⁷ in 1802, that disposition of the Carib lands began. Bentinck conveyed the right to "use"—not "own"—5,262 acres of the Windward coast Carib Country to war veterans.²⁸ The total accessible area of the Windward district, later to become most of Charlotte Parish, was approximately 16,640 acres.²⁹ Large land allotments were given to prominent planters at "His Majesty's Pleasure" after an act in 1804 stripped the Indians of all rights to their former reserves as a consequence of their hostilities.³⁰ The Crown took possession of, but did not sell, the land rights. The 5,262 acres disposed of by 1807 caused a domestic crisis when it was learned that an American Royalist from Georgia, Colonel Thomas Browne, had been granted 6,000 acres of Carib Country lands, stretching from the Byera River in the south to the Cayo River in the north, including the area of 7 large, recently established estates. (See Figure 6.) The hapless planters, despite the Government's proclamations to the contrary, had hoped to purchase their land outright after clearing and cultivating it, but instead were faced with eviction.³¹ Negotiations between the parties involved and the local Crown representatives resulted in Browne receiving only 1,600 acres plus an indemnity of £25,000, part of the Treasury's earnings from the eventual sale of the occupied lands to their occupiers at an average price of £22.10s 0d per acre.³² The disputed land included some of the best sugar cane soil in the island and

comprised the estates of Tourama (or Turama), Orange Hill, Waterloo, Lot No. 14, Rabacca, Langley Park, Mount Bentinck, and Grand Sable (the estate of Colonel Browne and the largest single estate on the mainland of St. Vincent.) (See Figure 10.)

Nearly all the land grants in Charlotte Parish were of considerable size, despite the official preference for small allotments. By 1819, the average size of the 26 estates in the former Carib reserves was 499 acres, ranging from Grand Sable's 1,600 acres to Cummacrabou's 200 acres.³³ The area below 1,000 feet in elevation open to cultivation on the island was thus increased by about 52 per cent, from 31,834 acres to 48,474 acres. Not all of this land was equal in value, fertility, slope, and accessibility, but the additions permitted large-scale sugar manufacturing to begin at a time when the smaller estates elsewhere on the island were suffering from the economic costs incurred in the prolonged struggle of the 1790s with the Caribs. Those who could continue shipping their sugar during the late 1790s found a very favorable market in London; the rest of the planters had to absorb their current losses in addition to trying to meet the perennial expenses of trusts and annuities set up in the early years of the growth of the Vincentian sugar industry.

The sugar economy, at the point of revitalization after the dispersal of new lands in 1802, was faced a few years later with the problem of losing its cheap slave labor. In March, 1807, the English Parliament passed a bill abolishing the slave

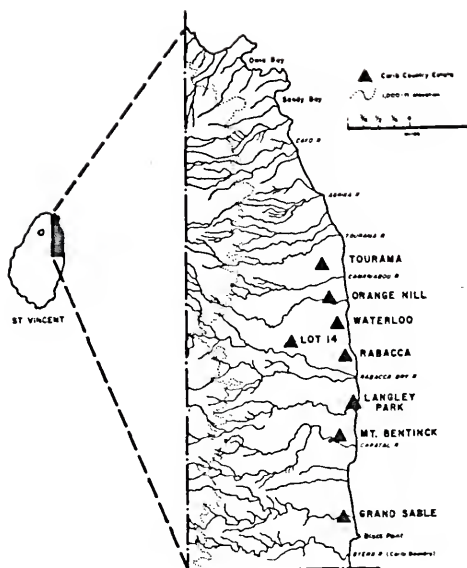


FIGURE 10
 "CARIB COUNTRY" ESTATES OF
 ST. VINCENT

trade between Africa and the British West Indies. This immediately increased the cost of producing slave-grown sugar by forcing the estate proprietors to look to the welfare of their chattel slaves, as only the children of these people could serve to replace or enlarge the existing work force.³⁴ The cost of caring for the young dependents until working age was reached and the care of adult health required more working capital.

St. Vincent, nevertheless, sustained its sugar industry despite the abolition of the slave trade, although not without complaints about the declining profits of muscovado sugar³⁵ in the home market and the rising costs of production attendant upon the renewed war with France in 1803.³⁶ Sugar production reached 11,200 tons in 1807, fell to 8,014 in 1809 and was again up to 11,270 in 1814 after Britain's 2-year war with the United States.³⁷ These large exports were made possible by the contributions of the Carib Country estates.³⁸

From 1814 to 1828, sugar exports were relatively stabilized, fluctuating between 10,834 tons in 1820 and 14,403 tons in 1828, the peak year of St. Vincent's sugar history. (See Figure 7.) Although sugar was by far the most extensively cultivated cash crop, there were at the same time smaller farms or parts of large estates, mostly in the valleys of the Leeward coast, devoted to coffee and cocoa production.³⁹

Coffee, the competing beverage drink in Britain with tea, was usually burdened by high import duties in the home market

and in Germany (the principal continental market) where the market crashed in 1773, causing an extremely low price for coffee.⁴⁰ The low coffee price and the defection of many of the French farmers led to the reduction of coffee exports from St. Vincent after the American Revolutionary War.

Cocoa, never an extensive commercial crop in St. Vincent because of the island's shallow soil and dryness,⁴¹ followed the coffee industry in its decline. Both coffee and cocoa were more or less restricted to the sheltered Leeward valleys, the domain of the early French settlers. The amalgamation of estates throughout the island relegated the position of these tree crops to that of a minor industry after 1800.

Cotton, another minor cash crop in the late 18th and 19th centuries, was grown in the colony but was confined to the smaller Grenadine Islands, a string of low-lying, dry islands to the south of the "main" island St. Vincent. Bequia and Mustique islands raised sugar and cotton, while Canouan, Union, Mayreau, and Petit St. Vincent produced only cotton. (Vide infra Chapter V for a discussion of cash crops raised in St. Vincent.)

The Waning of the Sugar Industry Before Slave Emancipation

The abolition of the slave trade in Great Britain, effective in 1808, presaged darker days for the proprietors in St. Vincent and the other British sugar islands as popular forces in Great Britain turned their efforts to the total eradication of forced servitude in the colonies. From the time of Adam Smith's

Wealth of Nations, the previously unchallenged lobbying influence of the West India Committee and its sympathizers began to wane. Mercantilism as an economic philosophy was gradually being supplanted by the ideas of "free trade."⁴² British industrial capitalism grew as mechanical inventions were developed and installed in the burgeoning factory system.⁴³

After the turn of the 19th century, many British West Indian sugar planters began facing a period of increasingly diminished profits. In fact, as early as 1807, a Government study reported that the average British West Indian sugar planter was unable to make a profit on his shipments to the home market.⁴⁴ Several reasons accounted for this situation: (a) imprudent management characterized by mounting indebtedness, absentee ownership, and the lack of technical innovation; (b) an oversupplied sugar market in London and consequent low prices; and (c) the demise of the slave trade and the cost of maintaining an adequate work force on the estates.

Absentee ownership, a plague on the proper administration of estates and the efficient governing of the colonies, became common practice after fortunes were made. Those owners who were in no position, physically or financially, to take direct control over their estates, very often abandoned them or were forced into chancery courts by creditors where receivers were appointed to administer what profits (if any) were left. Absenteeism resulted in the delegation of administrative responsibility to resident

attorneys (often called "planting attorneys") or managers, who feathered their own nests.⁴⁵ Costs and encumbrances weighed heavily on the inefficiently producing enterprises so characteristic of most of the small island economies in the British Caribbean.⁴⁶

In the Windward Islands (Dominica, St. Lucia, St. Vincent, and Grenada), few inventions or technical innovations were applied on the estates. The cost was often too high and the topography of the islands too rugged to permit large-scale agricultural practices—a prerequisite for the economic modernization of sugar manufacturing. Very few steam engines were introduced into St. Vincent to crush the canes, although they were available and were being bought and installed on the more progressive estates in some British and Spanish colonies of the Caribbean. Even the use of the horse-drawn plow was a rarity throughout St. Vincent during the 19th century. The short-handled hoe employed by field gangs was as advanced as the Vincentian planters could or would go toward agricultural improvements. Such conservatism was understandable, however, in a society laden with the tradition of ancestrally-owned sugar estates.

After the Napoleonic wars, a flood of cheaper and more refined sugar began arriving in the British home market. By the Treaty of Amiens in 1802, Spain had ceded Trinidad to Great Britain and by the Treaty of Paris in 1814, the Dutch had turned over their South American possessions of Demerara, Essiquibo, and Berbice to the British. These colonies developed into wealthy and

efficient producers of sugar, adding to the mounting supplies shipped to the London market. Additionally, the island of Mauritius in the Indian Ocean became a large producer of sugar after duty on its produce was equalized with that of the British West Indies in 1825.⁴⁷ These suppliers of refined sugar caused the price of sugar in London to collapse, from a war-induced peak in 1814 of 97s per hundredweight down to 24s in 1830, a loss in value of 76 per cent in 16 years.⁴⁸

Another factor which diminished the profitability of slave-grown sugar in the British West Indies was the abolition of the slave trade in 1807. The cessation of the slave trade had increased the expenses of running a successful estate, while plantations in Cuba and Brazil could still rely on replenishment of their work gangs from slave imports. The cost of providing for a slave child to the age of 14 years, when adult tasks could be expected of him, was £135 for the British Caribbean as a whole.⁴⁹ In the 1780s, a male slave could have been purchased for about £50 sterling; the average value of a Vincentian slave, from 1822 to 1830, was £58.6s 8d sterling.⁵⁰ Prices were higher for male field slaves than for females, or house servants, but it reveals the economic advantage to be gained from importing adult workers, ready for the fields. Those sugar producing areas which could replenish their slave gangs with fresh slaves were, naturally, bound to have this cost factor in their favor.

To placate the demands of the anti-slavery movement in Britain following the abolition of the slave trade, the home

Government, between 1823 and 1826, forced most of the British colonies to pass amelioration laws for the benefit of the slaves remaining on the estates. Religious instruction, legalization of slave marriages, and the prohibition of cruel and capricious punishment, among other measures, were enacted into law by unwilling colonial legislatures as a sop to the anti-slavery advocates in England.⁵¹ The amelioration legislation in St. Vincent, encompassed as the Slave Act of December 16, 1825, forbade the use of the slave driver's whip, encouraged slave marriages, and admitted testimony from slaves in capital cases.⁵²

The ramifications of such laws, however, were obvious to the planters. Complete emancipation of the slaves was only a few years away. The record for St. Vincent shows that the total number of black slaves steadily declined from 24,920 in 1812 to 18,794 in 1833, the last full year of slavery.⁵³ The attrition in numbers of slaves was the result of the higher mortality of an aging, predominantly male population without sufficient reproduction to compensate for deaths and the periodic manumission of the elderly and infirm from the slave registers.⁵⁴ It is evident from St. Vincent's court records of manumissions that the estate owners anticipated freedom for the black population and hastened the transition by releasing their less productive charges. Returns from 1819 to 1833 show the change in numbers of slaves in the parishes of St. Vincent and the largest dependency in the Grenadines, Bequia Island. (See Table 2.) Despite the loss of

labor from 1819 to 1833—10 per cent for the "main" island—sugar production remained relatively stable until after the peak year of 1828, when it declined 32 per cent in 5 years. (See Figure 7.)

TABLE 2
NUMBER OF SLAVES, BY PARISH,
ST VINCENT, 1819 AND 1833

Parish	1819	1833	Per Cent Change
Charlotte	7,068	6,729	- 5
St. George	5,616	4,994	- 11
St. Andrew	1,663	1,538	- 8
St. Patrick	2,144	1,654	- 23
St. David	1,828	1,519	- 17
Bequia Island	1,123	2,360	+110
Total	19,442	18,794	- 3
The 5 Parishes	18,319	16,434	- 10

Source: Estates Book, p. 235.

The final blow to St. Vincent and the other sugar colonies came on August 28, 1833, when an act of the British Parliament abolishing slavery in the colonial empire was passed into law. Commencing on August 1, 1834, all forms of forced servitude were to cease. The import of this act was that it put a seal on the future of sugar production in the smaller British West Indian colonies. It was only the wake of wars in Europe and the

Caribbean, from the time of the black revolt in Saint Domingue in 1791, that had sustained British estate agriculture beyond the reckoning day. Cane sugar could be produced in many areas of the world, not only in the Caribbean region, and the continuation of slavery in the Spanish and Portuguese possessions in the Western Hemisphere, particularly in Cuba, allowed cheaper sugar to be shipped to the European markets to undersell British colonial sugar re-exported from England.⁵⁵

With hand labor a vital requirement for the estates, St. Vincent's planters could only look with trepidation on the freeing of the slaves. In order to soften the blow, a period of "apprenticeship" was instituted so that slaves could bridge the gap between bondage and freedom. To help the planters adjust to the new social and economic order, all adult slaves were, therefore, bound by force of law to remain on the property and to furnish labor, as directed by a representative of the estate, for 45 hours a week during a 6-day work week. All work beyond the normal schedule of hours was to be compensated for by wages. The apprenticeship of ex-slaves was initially set for a 6-year duration for praedial hands and 4 years for others, beginning in 1834. Children under 6 years of age were exempt from these regulations at the outset of apprenticeship. During the transition period, the workers were to be furnished with lodging, clothing, a food allowance, and the use of a provisions ground. At any time before the expiration of the apprenticeship period,

a worker could purchase his freedom if he possessed enough money to pay for his estimated value to the planter.⁵⁶

St. Vincent finally ended its apprenticeship after 4 years, on August 1, 1838. It was decided that all laborers, praedial or otherwise, were declared to be free after that date. To compensate British planters for the loss of their most valued "property," a proposed loan of £15,000,000 was eventually negotiated into a grant of £20,000,000 to be given to the slave owners in the colonies. West Indian planters received £16,639,967 of the total indemnity in payment for 673,953 slaves; the average payment was approximately £25 per slave, well below the declared value of £56 per slave for all West Indian slaves.⁵⁷

St. Vincent had 22,997 slaves at the last registration in 1832, valued by the owners at £1,341,492, or approximately £58 per slave. The compensation to the Vincentian proprietors was £592,509, an average of £26 per slave or only 45 per cent of the declared worth.⁵⁸ Another author presents an analysis of St. Vincent's slave population by classes prior to apprenticeship. In 1832, 69 per cent were "field slaves" with a compensated value of £31 per slave; "non-field slaves" accounted for 13 per cent and were worth £30 each; 13 per cent were "children under 6 years" and were valued at £11; lastly, 5 per cent of the total were "aged and infirm," valued at £3 each.⁵⁹

There were 112 estates functioning in St. Vincent and its Grenadine dependencies in 1833, with an average number of slaves per estate of 205. This ranged from as many as 693 slaves on

the famous Grand Sable estate in Charlotte Parish to as low as 15 slaves on Madame Laroux's cotton estate on Petit St. Vincent island at the southern extreme of the Grenadine Islands of St. Vincent.⁶⁰

Summary

This chapter details the rise of the sugar industry in St. Vincent from the date of Britain's acquisition of the island to the end of slavery. It records the struggle of the last third of the 18th century as St. Vincent experienced 2 wars with its aboriginal population. Only after the successful campaigns against the Caribs was the colony able to concentrate on the monocultural production of sugar. Only 3 years after the official amelioration of the life of Vincentian slaves was accomplished in 1825, the colony reached its zenith as a sugar producing island and began waning. Apprenticeship and emancipation are the last major socio-economic events considered in this chapter.

NOTES TO CHAPTER III

- ¹ A French missionary, Père Labat, recorded meeting another French priest in St. Vincent in 1700. See: R. P. Labat, Voyages aux Isles de L'Amerique (Antilles), 1693-1705, Collection Laque Orange Aventures et Voyages (2 vols.; Paris: Edition Ducharte, 1931), p. 168.
- ² Sir Alan Burns, History of the British West Indies (rev. 2d ed.; London: George Allen & Unwin, Ltd., 1965), pp. 350 and 371.
- ³ Thomas Coke, A History of the West Indies, Containing the Natural, Civil, and Ecclesiastical History of Each Island: With an Account of the Missions (3 vols.; London: A. Paris, 1810), II, p. 184.
- ⁴ Burns, History of the British West Indies, p. 484.
- ⁵ See Chapter VI for a further discussion of the early population history of St. Vincent.
- ⁶ Burns, History of the British West Indies, p. 489.
- ⁷ Lowell Joseph Ragatz, The Fall of the Planter Class in the British Caribbean, 1763-1833 (New York: D. Appleton-Century, 1928), p. 113.
- ⁸ Ivor Walters, The Unfortunate Valentine Morris (Newport, Eng.: R. H. Johns, Ltd., 1964), p. 35.
- ⁹ Ragatz, Fall of the Planter Class, pp. 113-114.
- ¹⁰ Ibid., p. 113. Note: Throughout this study, except where noted otherwise, the monetary units used are the English pound (£), shilling (s), and pence (d). When all three denominations are used, they will be given as follows: £2. 2s 2d, read as 2 pounds, 2 shillings, and 2 pence. At times, only one of the denominations may be used. There are 12 pence in 1 shilling and 20 shillings in 1 pound. All monetary totals are given as unadjusted values.
- ¹¹ Ragatz, Fall of the Planter Class, p. 113.

- 12 Walters, Valentine Morris, p. 30
- 13 Charles Shephard, An Historical Account of the Island of St. Vincent (London: W. Nichol, 1831), Appendix, Table No. XX, pp. lix-lxvii.
- 14 Ibid., pp. lxiv-lxvii. One Frenchman, Heude, had several scattered parcels which, added together, gave him an estate of 153 acres.
- 15 David L. Niddrie, "Eighteenth-Century Settlement in the British Caribbean," Transactions and Papers, The Institute of British Geographers, Publication No. 40 (1960), p. 78.
- 16 Ibid., pp. 78-79.
- 17 Coke, History of the West Indies, p. 186.
- 18 Burns, History of the British West Indies, p. 505.
- 19 Walters, Valentine Morris, p. 35.
- 20 Ibid., pp. 57-58. Governor Morris disposed of this new land in 64 grants to 56 persons. French settlers received a total of 18 grants. Of these new grants, 37 were under 50 acres in size. Only Morris's own grants to himself were larger than 100 acres in size. He reserved for himself 3 land parcels of 350, 360, and 500 acres, located in the newly opened Carib lands north of the Yambou River.
- 21 This officer was Lieutenant-Colonel George Etherington, whose wooded estate was located north of and bounded on the south by the Wallibou River on the north Leeward coast. (See Figure 6.) It was while using garrison troops to clear his land that Etherington allowed a French force to capture St. Vincent in 1779 without firing a shot.
- 22 A woman with the rank of "Dame d'honneur" in the French Palace, Mrs. Martha Swinburne, was granted 20,000 acres of unoccupied land. The exact location of this land is not known. See: Shephard, An Historical Account of St. Vincent, pp. 48-49.
The deeds pertaining to the period of French occupation are located in the vault of the Registrar-General's office in Kingstown, St. Vincent but are not available for public use owing to their fragile condition.

23 Shepard, An Historical Account of St. Vincent, pp. 48-49.
Also see: Ebenezer Duncan, A Brief History of St. Vincent
(4th ed., rev.; Kingstown: Reliance Printery, 1967). Much of
this small monograph has been culled from Shephard's early history.

24 Noel Deerr, A History of Sugar (2 vols.; London: Chapman
& Hall, Ltd., 1950), I, p. 240. Production in Saint Domingue
dropped from 78,696 tons in 1791 to 8,937 tons in 1801, never to
recover again until more than a century later.

25 This was near Lieutenant-Colonel Etherington's estate.
See n. 21.

26 Ragatz, Fall of the Planter Class, p. 223.

27 Henry Bentinck, like many governors, succeeded his father,
William Bentinck.

28 Ragatz, Fall of the Planter Class, p. 224.

29 At the time of the formation of the Carib Country estates,
Charlotte Parish included about 16,640 acres of land below 1,000
feet in elevation—the area below the Crown land reserves. This
is based on an approximation of the area between the Galway River
(near Biabou Village on the south Windward coast) and West Point
on the north tip of the island. Today, the area of Charlotte
Parish below 1,000 feet is approximately 19,360 acres according
to the author's planimetric calculations. This encompasses the
additional land between the Galway River and the Yambou River
south of it.

30 Shepard, An Historical Account of St. Vincent, p. 178.

31 Ragatz, Fall of the Planter Class, p. 224.

32 Ibid., p. 225.

33 Shephard, An Historical Account of St. Vincent, Appendix,
Table No. VI, pp. vi-x. Another valuable reference to the early
estates is a partially destroyed book with the title page and the
first 159 pages missing. It contains a listing of the estates in
each parish, the number of acres and slaves on each estate, and

the production of each from 1819 to 1824. From 1825 to 1852 (and in some cases, to 1854), additions are written in by hand. The book is in the private possession of Dr. I. A. E. Kirby, Chief Veterinary Officer, Department of Agriculture, Kingstown, St. Vincent, West Indies. Hereafter this work is cited as Estates Book.

³⁴ William Law Mathieson, British Slavery and Its Abolition, 1823-1838 (London: Longmans, Green and Company, Ltd., 1926), p. 60.

³⁵ Muscovado (or "dirty") sugar is sugar which retains a greater or lesser amount of molasses. The inefficiency of 19th century sugar technology in St. Vincent and the other smaller British West Indian colonies resulted in hot and continuous boiling of sugar syrup to evaporate the water and concentrate the sucrose. Such a technique often led to an "inversion," producing glucose (molasses). The cooled sugar crystals had to drain long enough to remove much of the molasses, but too often in the rush of making sugar when the canes were ready for harvesting, sugar was packed in hogsheads while still warm and not thoroughly drained. Throughout the ocean voyage to the London market, molasses would drain out of the casks, causing losses of 5 to 16 per cent in the individual shipments. This method of production was the cause of the bad name which much of the sugar produced in the smaller islands earned. See: R. W. Beachey, The British West Indies Sugar Industry in the Late 19th Century (Oxford: Basil Blackwell, 1957), Chapter III, pp. 61-80, passim. For an account of the method of making sugar employed on a Vincentian sugar estate, see: Mrs. [A. C.] Carmichael, Domestic Manners and Social Condition of the White, Coloured, and Negro Population of the West Indies (2 vols.; London: Whittaker, Treacher, and Co., 1833), I, pp. 106-110.

³⁶ Ragatz, Fall of the Planter Class, p. 327.

³⁷ Deerr, History of Sugar, I, p. 200.

³⁸ J. P. Watson, J. Spector, and T. A. Jones, Soil and Land-Use Surveys, No. 3: St. Vincent (Port-of-Spain, Trinidad: The Regional Research Centre of the Imperial College of Tropical Agriculture, 1958), p. 6.

³⁹ The coffee and cocoa estates were located primarily in the upper reaches of the Cumberland and Wallilabou River valleys, in St. David and St. Patrick Parishes. From the earliest estate records available, the Estates Book, it is known that the

subsequent owners of these coffee and cocoa areas were British, with no French owners listed, at least as early as 1819.

40 J. H. Parry and P. M. Sherlock, A Short History of the West Indies (3ed.; New York: St. Martin's Press, 1971), p. 134.

41 Imperial Department of Agriculture for the West Indies, Reports on the Botanic Station, Agricultural School, and Land Settlement Scheme, St. Vincent, 1906-07 (Bridgetown, Barbados: Imperial Commissioner of Agriculture for the West Indies, 1907), p. 33; and Imperial Department of Agriculture for the West Indies, Report on the Agricultural Department, St. Vincent, for the Year 1920 (Port-of-Spain, Trinidad: Imperial Commissioner of Agriculture for the West Indies, 1921), p. 18.

42 L. C. A. Knowles, The Economic Development of the British Overseas Empire, Studies in Economics and Political Science, London School of Economics and Political Science, Monograph No. 76 (3 vols.; New York: Albert & Charles Boni, 1925), I, pp. 27-28.

43 Eric Williams, Capitalism and Slavery (New York: Capricorn Books, 1966; original copyright by the University of North Carolina Press, 1944), pp. 126-134.

44 Ibid., p. 15.

45 Joseph Sturge and Thomas Harvey, The West Indies in 1837 (London: Hamilton, Adams & Co., 1838), p. 160.

46 Edmund Sturge, West India: Compensation to the Owners of Slaves (Gloucester, England: John Bellows, 1893), pp. 5-6.

47 F. R. Augier et al., The Making of the West Indies (London: Longmans, Green and Company, Ltd., 1960), p. 131. Also see: International Sugar Council, The World Sugar Economy: Structure and Policies (2 vols.; London: International Sugar Council, 1963), II, p. 19.

48 Deerr, History of Sugar, II, pp. 530-531.

49 Ragatz, Fall of the Planter Class, p. 337. In Jamaica, after the abolition of the slave trade, the cost of raising a slave child was £120 sterling.

⁵⁰ "Inter-Colonial Apportionment," unnumbered manuscript page at the end of the Estates Book.

⁵¹ Mathieson, British Slavery, pp. 163-164.

⁵² Shephard, An Historical Account of St. Vincent, Appendix, Table No. XVIII, pp. xlv-xlviif, passim.

⁵³ West Indian Census, 1946, Part R: Census of Population of the Windward Islands, Table G, p. xiv. Also see: Estates Book, p. 241. The total number of slaves was 16,500 in 1805 and 24,920 in 1812. There are no records to show what the total was in 1808 when the slave trade was abolished. It seems unlikely that the peak year for slavery would have been 4 years after the importation of such workers was prohibited.

⁵⁴ According to the "Slave Act of July 13, 1767," anyone manumitting a slave was to pay into the Public Treasury the sum of £100 currency or £4.6s 8d sterling. See: The Colony of St. Vincent, Blue Book, 1853, pp. 212-213.

⁵⁵ Williams, Capitalism and Slavery, p. 149.

⁵⁶ Ragatz, Fall of the Planter Class, p. 455.

⁵⁷ "Inter-Colonial Apportionment," in Estates Book.

⁵⁸ Ibid. Also see: Burns, History of the British West Indies, p. 629, and Augier et al., Making of the West Indies, p. 183. The total number of slaves and the compensation paid differs slightly among these three sources. Burns and Augier et al. show 22,266 and 22,265 slaves, respectively, for St. Vincent. The Estates Book is taken as the correct reference because the numbers coincide elsewhere in its pages with those in Charles Shephard's historical treatise on St. Vincent published in 1831. Most tables in the Estates Book are hand-written with great care and exhibit a familiarization with local condition.

⁵⁹ Augier et al., Making of the West Indies, p. 183.

⁶⁰ Author's calculations from the totals listed in the Estates Book.

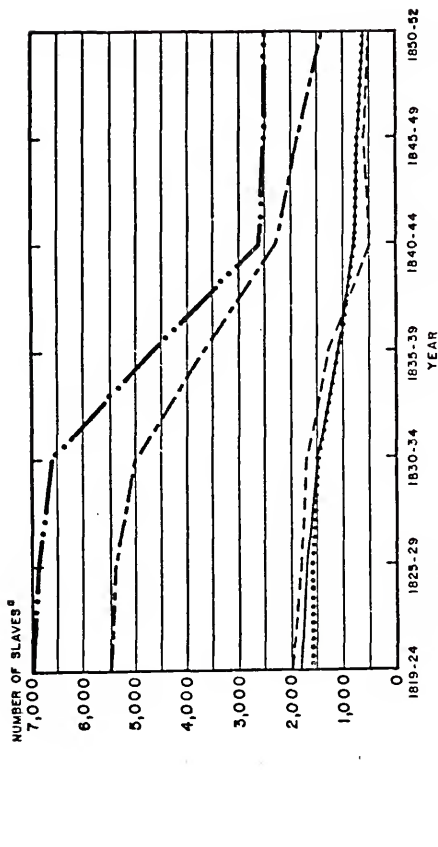
CHAPTER IV

THE SUGAR INDUSTRY OF ST. VINCENT, 1839 TO 1902

The period from 1839 to 1902 marks the demise of St. Vincent's sugar economy, resulting from labor supply problems and the mounting financial crises among the estates, coupled with adverse changes in the world sugar market. What follows is a review of the forces responsible for the failure of the sugar cane industry. First, there is an account of the labor situation consequent upon emancipation. Secondly, there is a discussion of the various immigrant labor schemes undertaken to alleviate the labor situation existing after emancipation. Thirdly, the effects in St. Vincent of the West Indian Encumbered Estates Act of 1854 are outlined. Finally, the ultimate ruin of the Vincentian sugar cane manufacture is documented.

Post-Emancipation Labor Shortages

As the day of slave emancipation in St. Vincent approached, there was a slow but steady attrition in the number of workers attached to the sugar estates, much as the planters had forecast. From a total of 14,441 estate laborers (slaves) in 1834, the number declined to 11,772 in 1838, a loss of 18 per cent during the apprenticeship period.¹ (See Figure 11 and Table 3.)



SOURCE: ESTATES BOOK, p. 235. ^a AFTER 1833, "SLAVES" WERE REFERRED TO AS "LABORERS."

CHARLOTTE ST. GEORGE ST. PATRICK ST. DAVID ST. ANDREW

FIGURE 11

AVERAGE NUMBER OF SLAVES, BY PARISH,
ST. VINCENT, 1819-1852

TABLE 3
 NUMBER OF SLAVES,^a BY PARISH,
 ST. VINCENT,^b 1819-1852

Year	Charlotte	St. George	St. Andrew	St. Patrick	St. David	Total
1819	7,068	5,616	1,663	2,144	1,828	18,319
1820	6,983	5,551	1,622	2,082	1,847	18,085
1821	6,973	5,477	1,588	2,026	1,853	17,917
1822	7,074	5,394	1,670	1,939	1,857	17,934
1823	6,958	5,286	1,601	1,961	1,813	17,619
1824	6,985	5,478	1,611	1,972	1,825	17,871
1825	6,958	5,438	1,634	1,899	1,824	17,753
1826	6,870	5,397	1,612	1,890	1,801	17,570
1827	6,975	5,396	1,604	1,881	1,771	17,617
1828	6,989	5,439	1,580	1,807	1,680	17,495
1829	6,917	5,345	1,572	1,763	1,655	17,252
1830	6,859	5,284	1,558	1,747	1,562	17,010
1831	6,749	5,197	1,560	1,714	1,598	16,818
1832	6,691	5,166	1,541	1,673	1,558	16,629
1833	6,729	4,994	1,538	1,654	1,519	16,434
1834	5,863	4,466	1,297	1,486	1,329	14,441
1835	5,664	4,300	1,195	1,465	1,274	13,898
1836	5,389	4,057	1,234	1,432	1,230	13,342
1837	5,260	3,865	1,130	1,429	1,202	12,886
1838	3,968	3,626	960	1,294	1,098	10,946

TABLE 3 CONTINUED

Year	Charlotte	St. George	St. Andrew	St. Patrick	St. David	Total
1839	2,979	2,562	934	815	837	8,127
1840	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1841	2,906	2,555	880	756	880	7,977
1842	2,436	2,119	839	752	749	6,895
1843	2,499	2,217	789	554	673	6,732
1844	2,378	2,223	637	664	717	6,619
1845	2,083	1,969	679	620	712	6,063
1846	2,769	1,882	695	832	630	6,808
1847	2,722	2,093	700	604	654	6,773
1848	2,605	1,728	701	516	529	6,079
1849	2,079	1,792	575	507	757	5,710
1850	2,428	1,747	694	550	751	6,170
1851	2,434	1,318	567	476	961	5,756
1852	2,702	1,147	639	527	753	5,768

^a After 1833, the freed slaves were referred to as "laborers."

^b This does not include the Grenadine dependencies for which complete data were lacking.

Source: Estates Book, "General Return of the Number of Slaves, on the Several Estates in the Island of Saint Vincent and its Dependencies, from 1819 to 1824, both inclusive [with additions through 1852]," p. 235.

The decrease in the potential work force that existed at the end of the apprenticeship period was due to the release in 1834 of all children under the age of 6 years, the old and infirm, the natural mortality of the estate residents during the 4-year transitional period, and manumissions. Regardless of the diminution of the estate working population during apprenticeship, the output of sugar remained relatively stable, fluctuating between 9,700 tons and 10,500 from 1833 to 1838. (See Figure 7.) The most significant change in the size of the estate labor force and the production of sugar, however, appeared immediately after emancipation as the freed slaves opted to sever their ties with the barracks life of the Vincentian estates and to seek, hopefully, a more independent mode of existence. Where and when possible, many ex-slaves sought to establish residence in "free villages," towns, and small settlements, purchasing provision grounds when available and, occasionally, squatting when land could not be bought.

Free Villages

The laborers who elected to leave estate service generally took up residence along the margins of their former estates or in nearby towns. It was the creation of new settlements, called "free villages," that occupied so many workers after emancipation. During the first complete year of freedom (1839), the number of workers who abandoned their estate lodgings was 2,819, a reduction in estate residents of 27 per cent from the year 1838 and

of 44 per cent from 1834. (See Table 3.) Such a downwardly fluctuating labor supply persisted through 1849 after which there was a recovery.

It is impossible to ascertain the exact number of people who settled in the "free villages," but it can be assumed that many of those abandoning the estates did so. This move, of course, did not necessarily free the workers from giving wage service to the estates, except for the female ex-slave who generally chose less demanding enterprises.² By 1844, only 24 per cent of the island's population was classed as estate laborers, that is, resident workers, down from 95 per cent in 1831.³ This means that by the time of the first official census of St. Vincent in 1844, there were 20,629 Vincentians living, if not always working, off of the sugar estates. It should be noted, however, that not all of these people resided in free villages.⁴

The first mention of "free villages" in the St. Vincent Blue Books was in 1854, when 7,466 people were reported as living in villages built since emancipation; the following year this figure had increased to 7,965.⁵ By 1859, the free villagers totalled 8,209 and later, in 1861, there were 12,833.⁶ It seems unlikely that the free villagers ever surpassed these figures before the 1850s. Those not in the new villages were in all likelihood in established pre-emancipation towns and settlements.

Land Purchases

With such a considerable proportion of cultivators living outside of the estate system, the sugar industry could easily have been ruined within a few years. What saved the planters at this time was the inability of the ex-slaves to purchase sufficient land to occupy themselves full-time once they abandoned estate service. Many farmers had been able to buy marginal plantation lands or land the proprietors were financially unable to cultivate,⁷ but as Niddrie points out, such land was often offered at "exorbitant prices."⁸ Although some small cultivators bought land from recently defunct estates whenever possible to gain a measure of economic independence, most of St. Vincent's cultivable and accessible land was alienated long before emancipation.⁹ In 1854, for example, only 22 persons became registered freeholders and this at a time when much land lay abandoned owing to the disastrous effect of the Sugar Duties Acts of 1846 and 1848. According to the 1861 Census of Population, there were only 2,287 freeholders of land, out of a population of 31,755—slightly more than 7 per cent of the total population. In view of the fact that there were 2,347 whites and 6,553 "colored" at that time, it seems unlikely that the black population, which comprised most of the labor force, possessed much land.¹⁰ In fact, the proportion of Vincentians classed as estate residents had increased from 24 per cent of the population in 1844 to 33 per cent in 1861. Even by combining the categories of "freeholders," "leaseholders," and "tenants-at-will" it is possible to account for a mere 14 per cent

of the 1861 population. Thus, it appears that St. Vincent lost much less of its permanent estate labor force than did many of the other colonies in the British Caribbean.¹¹

Squatting

A constant hindrance to planters' efforts to secure cheap, abundant, and dependable labor force throughout the British Caribbean after emancipation was the practice of "squatting" on unused or marginal estate lands and land held by the colonial Government. Whenever a small cultivator was unable to buy a parcel of land, he had the option to cultivate illegally land which was unused. This was more common in the larger or less densely settled colonies, such as Jamaica, Trinidad, Dominica, and Tobago, with great areas of unclaimed land in the interior.¹²

Illegal squatting on Government land (Crown land) in St. Vincent, although an acknowledged evil in neighboring colonies, was not generally practiced.¹³ Only occasional instances of squatting on Crown lands for the raising of provisions were known. The only systematic encroachment on St. Vincent's Government lands for the unlicensed purpose of charcoal burning.¹⁴ In the Grenadine dependencies, however, there was a constant complaint of cultivators squatting on abandoned or unused estate lands, but the number of laborers resident in these small islands reduced its significance to the colony as a whole.¹⁵

Notwithstanding the 84,595 acres of land area in St. Vincent, only 43 per cent of it is deemed accessible or alienable (non-Crown land), that is, lies below 1,000 feet in elevation. Most

of this accessible land was already in private hands before the small cultivators had an opportunity to buy it or to squat on it.¹⁶ The extremely rugged topography would make even provision grounds difficult to reach and cultivate if they were located high up in the valleys or were on top of the ridge lines. Few farmers, today or in the past, have in fact cultivated land above the 1,000-foot contour level.¹⁷

Labor Supply Problems

After a brief sojourn away from compulsory work on the estates (required during slavery and apprenticeship), many ex-slaves began to drift back to their former occupations. Those who, in one way or another, had obtained a piece of land, devoted their energies to its cultivation, raising arrowroot, sugar cane, cocoa, spices, citrus, and, especially in the Grenadines, cotton.¹⁸ Generally, however, the Vincentian cultivators had to rely periodically upon estate service for supplemental income. The most obvious effects of the return to estate labor are revealed in the sugar production figures.

Immediately following emancipation, production of sugar declined from 9,707 tons in 1838 to 7,595 tons in 1839 and, finally, to 5,051 tons in 1840, a record minimum for the first 40 years of the 19th century. (See Figure 7.) From 1840 to 1852, sugar production gradually increased, rising from 5,051 tons to 8,829 tons, respectively, a growth of 75 per cent. It is interesting to note that an increase of this magnitude was accomplished at a time when sugar prices fell by 73 per cent in the same 12-year interval.

(See Figure 9.) The resurgence of sugar manufacture demonstrates that many former field hands were still willing to return to the estates, not necessarily to reside, but because of their straitened circumstances and the scarcity of good, purchasable land at reasonable prices.

Although the planters had lost their slaves by emancipation, they did not fully relinquish their powers to legislate in the defense of their labor needs, as all the elected members of the St. Vincent House of Assembly were also required to be property owners. Where possible, they sought ways of forcing the freed slaves to depend upon estate service for their livelihood.¹⁹

In the immediate post-emancipation years, however, the home Government in Britain was able to override the intentions of the planters for a more "captive" labor supply by enacting "Master and Servant" acts to establish the rights of both parties to labor contracts. Companion statutes to the 1833 emancipation law were passed in order to guarantee that planters did not abuse the right of hiring help.²⁰ This naturally hindered the planters in their recruiting efforts. As an inducement for the ex-slaves to commit their labor to the estates, the planters had to continue providing lodging, rent-free provision grounds, and food allowances (the perquisite formerly given to slaves) in return for a daily wage less than the market rate for contract employment of non-resident cultivators.²¹ Contracts were signed on a monthly basis and payment was sometimes delayed for months, aggravating the labor situation. A maneuver adopted by Vincentian

proprietors to obtain more work for a given wage was the setting of a "task" rate in place of a daily wage rate, but worker dissatisfaction caused this practice to be abandoned.²²

Arranging a job for estate work posed a dilemma for both contracting parties—employer and employee. When laborers were urgently required on the estates—in croptime—they were sometimes elsewhere since those who had access to provision grounds were busy with their own planting. Likewise, when the small cultivators sought extra work out of croptime, they discovered that the estates were not hiring. Under the slave system, the dead season—or tiempo muerte of all sugar crop areas—after the frantic harvesting and grinding of the cane, was taken up with repairs and "make-work" odd jobs. Following emancipation, when the estate owners were no longer guaranteed the free labor of field hands, they tried to reduce their expenses by refusing to hire unneeded help during the period between harvesting and planting.²³

In order to maintain the monocultural system of sugar cane cultivation, an abundant, dependable, and cheap labor force was paramount over all other requirements. Warnings were voiced for many years before about the need to diversify commercial agriculture; nevertheless, the proprietors persistently avoided changing either their source of income (sugar cane) or the methods they used to manufacture the raw muscovado sugar product.²⁴ Thus the aftermath of emancipation saw the crisis deepen for many already mortgaged and indebted planters, resident and absentee alike.

The commitment to sugar cane cultivation with antiquated technology and equipment bound the planters symbiotically to their ex-slaves. The "newer" colonies in the British Caribbean, Trinidad and the former Dutch colonies of Berbice, Demerara, and Essiquibo (the last 3 constituted as British Guiana in 1831) had had to face emancipation, yet afterwards they attempted to build a modern industry around sugar cane by introducing technical innovations.²⁵

The perennial outcry throughout the British West Indies about the scarcity of willing laborers was not so much a reflection of the revulsion the freed slaves had against agricultural work as it was a reaction to the extremely low wages offered for such employment.²⁶ Nevertheless, most ex-slaves continued to work intermittently in estate agriculture, seeking the greatest remuneration for their efforts.

If a planter in St. Vincent were to survive, however, he had somehow to reduce his expenses in order to maintain a given level of profit as the price of sugar in the London market fell throughout the 1840s. (See Figure 9.) In the absence of alien workers, whenever the labor demands of the planters exceeded the immediate local supply of willing help, it was impossible for the proprietors to reduce wages arbitrarily. Such action would run the risk of losing what help existed at croptime. As a result, one frequently proposed remedy for the dearth of low-wage laborers was that of introducing immigrants in sufficient numbers to help hold down wage demands by compelling the small cultivators to compete for work. With this thought in mind, the planter-dominated legislature of St. Vincent began a series of moves to import alien workers.

Alien Labor Immigration, 1845 to 1880

It has been shown that sugar production declined sharply in St. Vincent from 1838 to 1840. The subsequent recovery coincided with the return of many ex-slaves to estate service and the first importations of alien indentured cultivators. Throughout most of the 40 years after 1840, St. Vincent was, in fact, able to sustain its sugar production with the aid of the foreign workers who served on the sugar estates during their indenture periods.

Portuguese Madeiran Immigration

When the St. Vincent Government sought to obtain an outside supply of estate laborers after 1840, it faced a restricted choice of labor pools. East Indian immigration into the West Indies was suspended from 1839 to 1844, during which time the supply of "liberated" African workers (vide infra) was being sent to the larger British Caribbean colonies of Jamaica, British Guiana, and Trinidad.²⁷ The only remaining source of potential large-scale emigration at this time was Portuguese Madeira, which had agreed in 1845 to renew emigration of its citizens after suspending such action in 1835.²⁸ Consequently, the St. Vincent legislature enacted a law providing for the acquisition of indentured Portuguese Madeirans.²⁹

In 1845, the first shipload of immigrant laborers, 254 Portuguese Madeirans, arrived in the island to begin their indentured service period.³⁰ The bulk of the Madeiran immigration

to St. Vincent occurred between 1846 and 1850, when 1,848 immigrants debarked in Kingstown, making a total of 2,102 indentees, including the arrival of the first group in 1845. (See Table 4.) An important factor accounting for the large-scale emigration from the island of Madeira in this period was a famine in 1846. Many went to other colonies in the British West Indies, to British Guiana in particular, and to the small islands of Antigua, St. Kitts, and Nevis. After 1850, there were no Madeirans indentured until the last small group of 8 arrived in 1864. Although they were cultivators in Madeira, many of the immigrants who remained after the expiration of their service contracts left the fields to embark on commercial ventures as shopkeepers.³¹

"Liberated" African Immigrants

Because many of the Madeirans proved unwilling to re-indenture themselves for agricultural work, the old labor shortages recurred, exacerbated even further by the seasonal emigration of Vincentian cultivators to the higher-wage areas of Trinidad and British Guiana. In addition, island-wide labor riots for higher wages broke out in 1847 and 1848. The St. Vincent Government, therefore, had little option but to open the door to the importation of more workers of African origin, highly prized and much sought-after.³²

An alternate source of contract laborers for the sugar estates of St. Vincent was the growing reservoir of interned Africans confiscated from slave ships bound for the Spanish and Portuguese colonies in the Americas. From 1839 to 1859, the

TABLE 4

NUMBER OF PORTUGUESE MADEIRAN, LIBERATED AFRICAN, AND
EAST INDIAN IMMIGRANTS, BY YEAR, ST. VINCENT
1844-1880

Year	Portuguese Madeiran ^a	Liberated African ^b	East Indian ^c
1844	254	-	-
1846-1850	1,848	809	-
1860	-	94	-
1861	-	119	259
1862	-	14	283
1864	8 ^d	-	-
1866	-	-	207
1867	-	-	477
1869	-	-	335
1871	-	-	324
1875	-	-	332
1880	-	-	212
Total	2,110	1,036	2,429 ^e

^aG. W. Roberts and J. Byrne, "Summary Statistics on Indenture and Associated Migration affecting the West Indies, 1834-1918, Population Studies, XX, No. 1 (July, 1966), Table 3, p. 129.

^bImmigration Office, "Register of Immigrants—Africans," a manuscript record of the arrival of liberated Africans, deposited in the safety vault of the St. Vincent Registrar-General's office in Kingstown.

^cImmigration Office, "Register of Immigrants—No. 1, Indians [1861-1880]," a manuscript record deposited in the safety vault of the St. Vincent Registrar-General's office in Kingstown.

^dIbid., an unnumbered page following the listing of East Indian immigrants.

^eRoberts and Byrne, "Summary statistics," Table 2, p. 129, shows a discrepancy in this total. Their figures amount to 2,472. The author has used the official count registered in Kingstown upon arrival of the East Indian indentees.

British Royal Navy maintained a cruiser patrol in the sea lanes and along the shoreline of the West coast of Africa in an attempt to suppress the slave trade, interning captured slave ships at Vice-Admiralty or Mixed Commission courts located at Havana, Rio de Janeiro, Luanda, Sierra Leone, and St. Helena. Once their seizure was declared legal at the nearest appointed court, the captured (or "liberated") Africans were impounded for a few months at Government expense in the "King's Yard," usually in Sierra Leone or St. Helena.³³

In the decade after slavery, the expressed need for more labor in the British West Indian colonies accorded with the home Government's wish to ease the burden of caring for these liberated slaves; therefore, as early as 1840, Britain consented to the removal—by private interests—of the internees, at their own request, to the West Indies under indenture contracts. This proved to be unsuccessful, and after 1841, the British Government began official supervision and regulation of the movement of "liberated" Africans.³⁴ Most of them were assigned to the 3 largest British West Indian colonies—Jamaica, British Guiana, and Trinidad—under the Government approved traffic, but in 1848, the smaller British Caribbean colonies requested a share of indentured Africans.³⁵ In order to assist the colonies, suffering as they were from a depressed sugar market after the enactment of Sugar Duties Acts of 1846 and 1848, Britain agreed in 1849 to underwrite the cost of transporting the liberated Africans to the West Indies. Two ships dispatched from Sierra Leone to St. Vincent,

bringing 234 indentured Africans in 1849 and another 575 in 1850.³⁶ There were no further consignments of Africans brought to St. Vincent for another decade. Finally, in 1860, 1861, and 1862, 3 shiploads totalling 227 internees from St. Helena were landed at Kingstown. (See Table 4.) These last indentees were all "2nd class" immigrants, that is, under the age of 15 years.³⁷

East Indian Immigration

The policy of liberated African immigration could, at best, be but a temporary palliative, in view of the powerful influences operating in the Atlantic Ocean to destroy the slave traffic at its source. For example, the abolition of the slave trade to Brazil in 1852 reduced the supply of captured slaves landed at the Vice-Admiralty courts to a mere trickle. In any case, the dispatching authorities gave a low priority to St. Vincent's labor requests, granting the larger British West Indian colonies, throughout, the lion's share of willing indentees. These factors forced the colonial Government to seek an alternate source of indentured workers.

Such a pool was already being effectively exploited by many sugar growing regions, such as Mauritius and Natal. Certain areas of the Indian subcontinent with people to spare were yielding up willing, efficient tillers of land eager to be indentured overseas. Preparation for the importation of East Indian indentured laborers into St. Vincent did not, however, begin until 1857, some 7 years after the last shipload of adult workers from Africa had debarked in the colony.

From 1834 to 1844, and again from 1848 to 1851, the Governor-General of India had curtailed emigration to the British West Indies because of mistreatment of the East Indians on the estates and irregularities in recruiting practices within India.³⁸ Such interruptions in the supply of East Indians compelled the West Indian planters to depend upon African laborers until regulations in British Guiana and Trinidad were revised in 1851, permitting the Indian Government to agree to a renewal of emigration to the British Caribbean.

In view of the availability of large numbers of "coolies"³⁹ as the supply of liberated Africans declined, St. Vincent had to enact laws which would satisfy the Indian Government before immigration of the East Indians could begin. Accordingly, several acts were passed in 1857, great care being given to formulating terms and conditions of contract service for the "coolies."⁴⁰

According to the terms of indenture, the East Indian indentee had to work in the island on an estate for at least 8 years, after which time he was given a "certificate of industrial residence" indicating the fulfillment of his obligation.⁴¹ He could then ask for return passage to his original point of embarkation in India. The planters wanted the "coolies" attached as long as possible, within the legal indenture term of 8 years, to estate agriculture; therefore, inducements were given for the indentees to serve out their terms in the estate fields, rather than have them pay a commutation fee to exclude themselves from the final 3-year commitment.⁴² To prevent the disillusionment of "coolies"

assigned to poorly run estates, each indentee could change his estate after the first 5 years of service. It was only after the initial 5-year term on an estate that an indentee had the option either to remain in field agriculture or to pay for the commutation of his last 3 years, thus freeing himself from all further contract obligations.

As an inducement for the East Indians to remain in estate service after the termination of their indenture, especially as they were "seasoned" and experienced by then, the planter-dominated legislature in St. Vincent enacted a law in 1874 that provided for a £10 bounty to be given to any East Indian who would relinquish his right to a return passage to India and re-indenture himself for another 5 years.⁴³

The first shipload of "coolies" arrived in St. Vincent in 1861, bringing 259 East Indians from the port of Madras; there were 8 additional shiploads between 1861 and 1880, all originating from Calcutta. The total number of Indians landed in the colony was 2,429 men, women, and children. (See Table 4.) Most of the "coolies" were requested by and assigned to the larger sugar estates along the Windward coast, including many of the Carib Country estates.⁴⁴ (See Figure 12 and Appendix I.)

With the aid of "coolie" labor for the fields and the benefits to the colony derived by the enactment of the West Indian Encumbered Estates Act in 1856 (*vide infra*), there was a renewal of activity in St. Vincent's sugar industry.⁴⁵ Although the "coolies" were beneficial to the estates, conditions in the

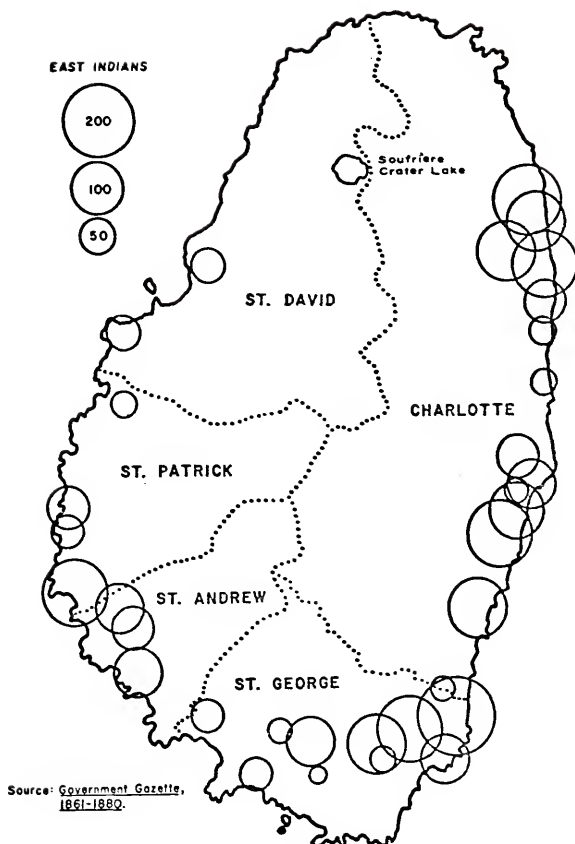


FIGURE 12
DISTRIBUTION OF EAST INDIANS, BY ESTATE,
ST. VINCENT, 1861-1880

international sugar market after 1874 made muscovado sugar production on Vincentian estates less profitable, resulting in a reduced number of East Indians who were willing to re-indenture themselves after the expiration of their first contracts.⁴⁶ The need to keep the "coolies" on the estates was a reaction to increasing emigration of native Vincentian and ex-coolie laborers to Trinidad in response to higher wages.⁴⁷ A warning was issued about the scarcity of willing and available estate workers, and in order to induce workers in the colony to remain in estate agriculture, the Government proposed making unalienated Crown lands or waste lands of the plantations available to satisfy what it considered to be the cultivators' desire to own property. In this way, the Government hoped to maintain the supply of steady field workers.⁴⁸

Having decided to pay the £10 bounty to any "coolie" who would give up his right to return passage and re-indenture himself for 5 years, the Government, in 1875, persuaded over 400 East Indians to accept the bounty and to re-indenture.⁴⁹ Although most Indians chose to remain in St. Vincent, approximately 30 per cent of those arriving since 1861 had emigrated to other Caribbean areas by 1875, especially to Trinidad. Only 3 1/2 per cent of the indentees returned to India, thus, expressing their preference for agricultural service in the West Indies to serfdom as low-caste or untouchable members of their communities in India.⁵⁰ Many of these Indians were able to save enough money to buy land, once their indentures were completed and to work

as casual labor on estates much as the native Vincentian population had been doing since the end of slavery.

Nevertheless, the impending depression in the sugar industry after the elimination of all sugar duties in 1874 and the general scarcity of land which might have afforded an alternative livelihood was manifested in a continuing emigration of agricultural laborers, including ex-coolies, to higher-paying permanent and seasonal employment in Trinidad. Between 1874 and 1878, the average annual number of indentured "coolies" remaining on Vincentian sugar estates was 1,454, while from 1879 to 1882, the average annual employment declined to 837, a decrease of 42 per cent.⁵¹ To forestall any large-scale loss of East Indians from the island after the completion of their service contracts, a law was passed in 1879 aimed specifically at prohibiting the Indians from being enticed to other colonies.⁵² After 1880, no more "coolies" were imported into St. Vincent because the Government was unable to provide sufficient funds for such labor, and in any event, the disastrous decline in sugar prices in 1882 affected the income of the planters so severely that the scheme became redundant.⁵³

The West Indian Encumbered Estates Act
in St. Vincent

Prolonged depression in the British West Indies, especially after the turn of the 19th century, had reduced sugar industry profits, driving many estates into debt and bankruptcy. The encumbrances of estates from jointures, legacies, and annuities

established in more prosperous times had compromised otherwise valuable properties. These legal demands on annual net income too often left the owners short of working capital, obliging them to seek advance loans at interest rates of 5 to 6 per cent or more, under consignment of their future crops. Crop consignment also carried commission charges of 2 1/2 per cent. Purchases of goods by the planters or their managers on credit cost another 5 per cent.⁵⁴ These charges, together with interest payments, often exceeded the earning power of estates which ordinarily without these burdens would have been solvent under unencumbered conditions.

An aggravating factor during the lean years after emancipation was the departure of many proprietors from St. Vincent to the United Kingdom. One historian of the sugar industry suggests that this was not as much of a catastrophe as it seems because most estate income was usually spent outside of the individual colonies, thus, permanent withdrawal of the owners had little direct effect on the supply of capital available for estate modernization.⁵⁵ The significance of their absence, however, must be viewed in the light of the attitudes of the resident managers, overseers, or "planting attorneys" who were left to operate the enterprises. Naturally, they were more concerned with receiving their annual salaries and were less devoted to the long-run success of the estates. This created another charge on net income. The extent of the depletion of resident owners was evident in 1854, when 70 out of 87 of St. Vincent's estates were

absentee-owned, with 6 resident attorneys managing 64 of them.⁵⁶ Management of the sugar mills and fields progressively deteriorated until many plantations ceased to function, leaving their laborers without jobs. Others continued production, allowing debts to mount and seeking multiple mortgages on the property whenever a lender (without knowing how many prior liens existed) could be induced to risk accepting an unguaranteed lien.

The Sale of Encumbered Estates in St. Vincent, 1856 to 1888

Abandonment of property was generally the only feasible choice for an indebted owner, since few people would offer to buy West Indian estates without a clear title.⁵⁷ To clear the titles of West Indian properties and expedite their sale and eventual return to cultivation, the British Parliament passed the Encumbered Estates Act of 1854.⁵⁸ Acceptance of the act into the West Indian legal system was on a voluntary basis. The first British West Indian legislature to enact its own similar law was that of St. Vincent, which passed the Encumbered Estates Act in 1856.⁵⁹ Such prompt action demonstrated the serious straits of estate cultivation in that island.

An indication of the degree of property abandonment is presented in the Blue Book of St. Vincent for the years 1854 through 1857. There were 82 estates listed by name for these years (excluding 5 in the Grenadines), but only 75 were being worked in 1854; 69 were worked in 1855; 62 were worked in 1856; and 63 were cultivated in 1857. In 1854, Kingstown District

(including St. George Parish, part of St. Andrew Parish and the Grenadine dependencies) was acknowledged to have 8 estates "formerly cultivated in Sugar, now abandoned," constituting about 1,500 acres.⁶⁰ On his visit to St. Vincent in 1859, William Sewell reported that 58 estates were under cultivation.⁶¹ This number was almost half of what it was in 1819, when 104 estates were in production.

In order to restore abandoned estates and those heavily encumbered with debt to sugar cultivation, in compliance with the provisions of the Encumbered Estates Act, local commissioners were chosen to adjudicate differences over title, ownership, and the priority of liens. All court actions were given final uniform decisions by a central court in London. To initiate legal action for the sale of an encumbered estate, the owner or any creditor could petition the Encumbered Estates Court in St. Vincent or London. If no objections were raised within a 6-month waiting period to hinder the sale, an order for sale was issued. All creditors with liens on the property had to file their cases with the court's secretary and were put on a priority list for the distribution of the proceeds of sale in the order of the filing of their claims.

A disputed legal point in the system of sale of insolvent estates was the "consignee's lien." The cyclical nature of prosperity in sugar production often forced the proprietors to seek advance loans with interest from their merchant agents in England. The merchants stipulated that for the duration of the

loan all plantation produce had to be consigned to them with a commission fee and transported in their ships. Legal precedence gave the consignee's lien first priority on the assets of an estate. As it happened under the Encumbered Estates Act, merchant agents would file for the sale of an insolvent estate, assured that their claims would be the first met. The depression in St. Vincent's sugar industry, in addition to the deteriorated conditions of abandoned or mismanaged plantations, reduced the sale value of estates to a fraction of their unencumbered working value. Very often, with the support of the consignee's lien, merchant agents or their attorneys petitioned the courts for the sale of estates and succeeded in buying them for nominal sums. A finalized sale guaranteed the purchaser undisputed parliamentary title to his property. Disputed titles were thus cleared up, but the concentration of ownership in a few hands was intensified, a problem left unsolved by the Encumbered Estates Act of 1856 in St. Vincent. For example, the firm of D. K. Porter and Company in England (and its local representative in the colony, James Graham) eventually controlled 20 estates in St. Vincent, most of them purchased through the court.

Once the Encumbered Estates Act was passed in St. Vincent and the first sale of an estate under its provisions was completed in 1858, it remained in force until 1888 when the last estate was sold in the court. Beachey states that there were 30 sales in St. Vincent over the 30-year life of the court (with only 3 sales

through the local court in Kingstown), while the St. Vincent Registrar-General's office records only 21 separate sales.⁶²

Some involved more than a single estate by the same owner, while 2 sales involved "moieties" or half shares of an estate. In all, 23 estates were brought to sale in whole or in part.⁶³ (See Table 5 and Figure 13.)

The first estate sold, Arnos Vale, was one of the most profitable before debt forced its owner to abandon cultivation in 1854 and place it in chancery. At the peak of its prosperity in 1828, the 454-acre estate produced 341 tons of muscovado sugar and employed 307 slaves. It provided an annual income in excess of £10,000 at that time. When it was brought to the Encumbered Estates Court in 1858, however, it had an accumulated debt of £30,000.⁶⁴ The sale on November 1, 1858, was for the sum of £10,050, the highest price paid for an estate sold under the provisions of the court in St. Vincent or in the rest of the British West Indies. The sale price was double that of other Vincentian estates sold over the next 30 years. Most of the estates handled by the court were sold during the 1860s when there was a desire to restore abandoned or unproductive estates to cultivation with a more dependable labor supply in the form of East Indian indentured immigrants.⁶⁵ The final petitions for sale of encumbered estates were filed in 1888, and by the following year, the St. Vincent legislature had passed orders abolishing the West Indian Encumbered Estates Act upon recommendation of a Royal Commission sent to investigate conditions

TABLE 5
ESTATES SOLD THROUGH THE WEST INDIAN ENCUMBERED
ESTATES ACT, ST. VINCENT, 1858-1888

Estate	Date Sold	Acreage	Purchase Price	Average Price Per Acre
Arnoe Vale	Nov. 1, 1858	454	£10,050	£22
Prospect	Nov. 7, 1859	282	1,800	6
Rose Bank	Aug. 1, 1861	285	860	3
Kearton's	Feb. 9, 1864	128	510	4
Park Hill	Mar. 8, 1864	326	1,520	5
Henry's Vale	June 21, 1864	301	700	2
Yambou Vale	June 21, 1864	287	1,050	4
Peruvian Vale	June 21, 1864	332	700	2
San Souci (1/2)	June 21, 1864	315	3,700	12
Waterloo	June 21, 1864	430	5,050	12
Mt. Greenan	June 21, 1864	366	4,100	11

TABLE 5 CONTINUED

Estate	Date Sold	Acreage	Purchase Price	Average Price Per Acre
Orange Hill	June 21, 1864	430	4,010	9
Escape	Jan. 31, 1865	200	2,000	10
Penniston's	Jan. 31, 1865	208	1,520	7
Kingstown Park	July 23, 1866	138	1,200	9
Richmond Vale and Golden Grove	July 28, 1869	634	5,500	9
Sans Souci (1/2)	Nov. 6, 1869	315	2,500	8
Grand Sable	Nov. 6, 1872	1,484	4,300	3
Sion Hill	Nov. 24, 1878	266	3,000	11
Petit Bordel, Sharpes's, and Mt. Alexander	May 30, 1888	650	[unsold at time of minutes]	
Camden Park	July 2, 1888	725	[unsold at time of minutes]	

Source: Compiled by the author from a book of minutes entitled Encumbered Estates, 1858-1882 [with additions to 1888], table entitled "A Return of the Estates sold under the Encumbered Estates Acts" since they came into force in the Island of Saint Vincent, in the year 1856," no page.

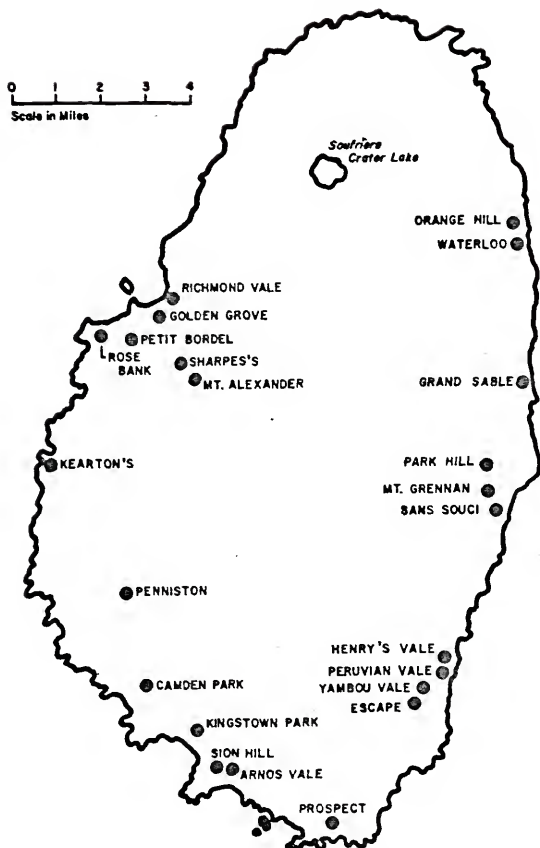


FIGURE 13
ESTATES SOLD IN THE ENCUMBERED ESTATES ACT
COURT, ST. VINCENT, 1858-1888

surrounding immigration practices and abuses under the Encumbered Estates Act.⁶⁶

The Number of Working Estates in St. Vincent, 1854 to 1902

In 1854, the year when the duty on all sugar shipped to British was finally equalized, the number of working estates in St. Vincent (excluding the Grenadines) was 77, down from the 100-odd estates functioning at the end of the Napoleonic wars. Within 5 years, this total further decreased to 58 as a result of abandonment of unprofitable and indebted plantations occasioned by the steady decline in sugar prices in London since 1840. (See Figure 9.) As soon as the West Indian Encumbered Estates Act was enacted in St. Vincent, the trend of abandonment of property was reversed. By 1862, the number of working estates had increased to 82, but there still existed 39 plantations abandoned from earlier days, or about 1 derelict estate for every 2 in operation.⁶⁷

As the East Indian "coolies" augmented the island's labor force after 1861 and more estates changed hands through the Encumbered Estates Act Court, there was a final resurgence in the sugar industry. The number of working estates expanded to a maximum of 97 between 1867 and 1875, marking the high-tide of post-emancipation sugar production. (See Figure 14.)

All duties on sugar imported into Britain were eliminated in 1874, resulting in a 34 per cent decrease in the number of operating estates within the short space of 3 years. Sugar

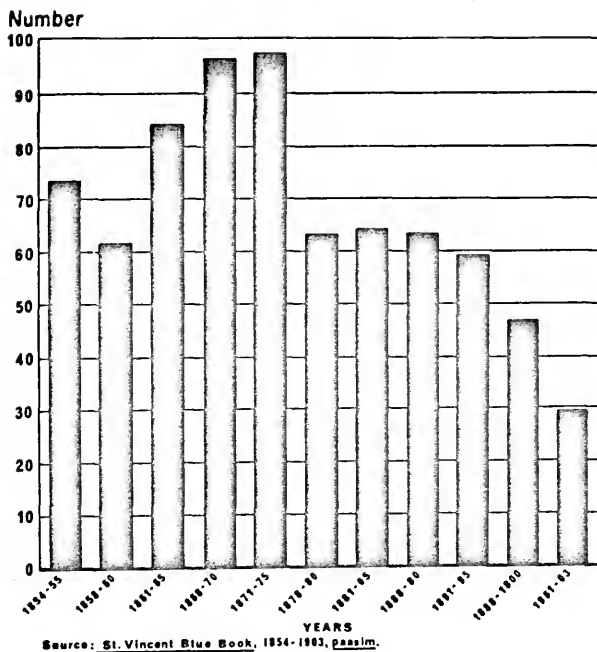


FIGURE 14
NUMBER OF SUGAR ESTATES,
ST. VINCENT, 1854 - 1903

production was relatively unaffected between 1874 and 1884; therefore, it may be postulated that the withdrawal from sugar cane cultivation was limited primarily to those marginally-run estates which could contribute little to the productivity of the Vincentian sugar economy.

A further deterioration in sugar cultivation occurred after 1880, when beet sugar flooded the English market, driving prices downward and causing a shift in demand from the lower quality muscovado sugar of the smaller British West Indian colonies to a more refined product. The number of working sugar estates thus declined from 63 in 1880 to 33 in 1902, during which time a disastrous hurricane and an eruption of the Soufrière volcano destroyed most of the sugar mill works.⁶⁸

The Demise of the Vincentian Sugar Economy,
1854 to 1902

The last half of the 19th century witnessed first the faltering and finally the dissolution of St. Vincent's sugar economy, a scenario duplicated at that time throughout the Windward Islands, especially in the neighboring island of Grenada. There was obviously no future for the muscovado sugar produced in St. Vincent after 1854, as modernization of the West Indian sugar cane industry became mandatory for survival. With the appearance of beet sugar in the world markets, the irreversible decline began.

The Sugar Cane Industry

The scramble among the British West Indian colonies for an abundant and dependable labor supply following emancipation reflected the new, more liberal trade policy patterns in the United Kingdom. Nowhere was this made more evident than in the rapid decline in political influence of the West Indian "establishment," which had to endure radical changes affecting colonial sugar production. Between 1836 and 1854, these changes served to remove the preferential treatment which British West Indian sugar had enjoyed in the home market.⁶⁹

The effect of all United Kingdom actions was to drive out the inefficient, heavily indebted planters in the British Caribbean and induce those who still commanded sources of working capital to rationalize their production.⁷⁰

The effect of the Sugar Duties Acts of 1846 and 1848 was most evident in St. Vincent. The sugar cane crop in 1855 was at its lowest level for over half a century. Furthermore, the average price of sugar in London in 1854 was at its lowest since the acquisition of St. Vincent in 1763. (See Figure 9.) From the crest of the last price wave in 1840, when sugar brought 49 shillings per hundredweight, a new minimum was reached of 20 shillings, a decline of 59 per cent in 14 years.

St. Vincent's production, however, fell from a 5-year average of 6,900 tons in 1840 to 6,100 tons in 1855, a loss of only 12 per cent in volume.⁷¹ This decrease in production is not as revealing as the decline from the last production peak

in 1852 to the low point in 1855. This showed a decline from 8,829 tons to 4,906 tons, or 44 per cent—a more meaningful demonstration of the impact of the equalization of duties on sugar exported to the United Kingdom.

Before the East Indian indentured workers began arriving in the colony, the sugar industry in St. Vincent was reported to be recovering from the depressed conditions resulting from the total equalization of sugar duties in 1854. The 15 years after 1840 had been disastrous, but the intercession of the West Indian Encumbered Estates Act Court in the late 1850s restored hope to the planters. In 1858, the Blue Book report on agriculture reported that there were no special improvements in agriculture but that cultivation "is pursued energetically and the aspect of the country as compared with recent years is very satisfactory."⁷² Yet nothing much had changed in the all-important sugar technology.⁷³

The reasons for such conservatism are plain to see. The old fashioned, open pan method of producing raw muscovado sugar was utilized simply because the scale of duties in England after 1854 favored the cheaper muscovado product, with its high molasses content. The more efficiently an estate could refine its sugar, the higher its value in the home market, and, hence, the higher the import duty it had to bear.⁷⁴ St. Vincent's sugar estates were not large enough to bear the cost of introducing the modern equipment and associated technology required for high quality refined sugar. Its interests were better served by

reliance upon the differential sugar duties for protection from the more efficient estates in Trinidad and British Guiana. As the East Indian "coolies" began working in the fields, a few of the more favorably located estates did, in fact, introduce the plow and horse harrow but nothing more sophisticated was ever envisaged.

From 1864 onwards, production increased through the year 1866, leveled out from 1867 through 1869, then reached a zenith in 1871 that was last duplicated in 1837. (See Figure 7.) After the new peak was reached, sugar exports declined, faltering cyclically until the death knell for muscovado sugar was sounded in the 1880s when subsidized beet sugar drove the price of cane sugar down disastrously low. The value of Vincentian sugar exports, always sensitive to price fluctuations, declined more quickly and definitely than did the quantity. (See Figures 7, 9, and 15.)

When all sugar duties were eliminated in 1874, there was no hope for the inefficient producers in St. Vincent and elsewhere in the British Caribbean. The confectioners in Britain preferred the cheaper semi-refined European continental beet sugar or cane sugar from tropical areas outside of the British Empire.⁷⁵

With the international sugar market experiencing steady price declines, it would have been to St. Vincent's benefit to make a major switch from sugar to another cash commodity, such as arrowroot, which had shown a growing importance since 1840. (Vida infra Chapter V.) Unfortunately, the extreme concentration

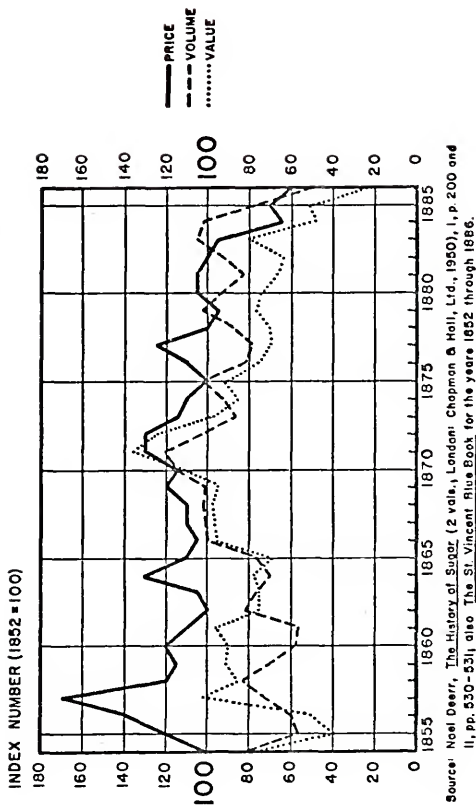


FIGURE 15

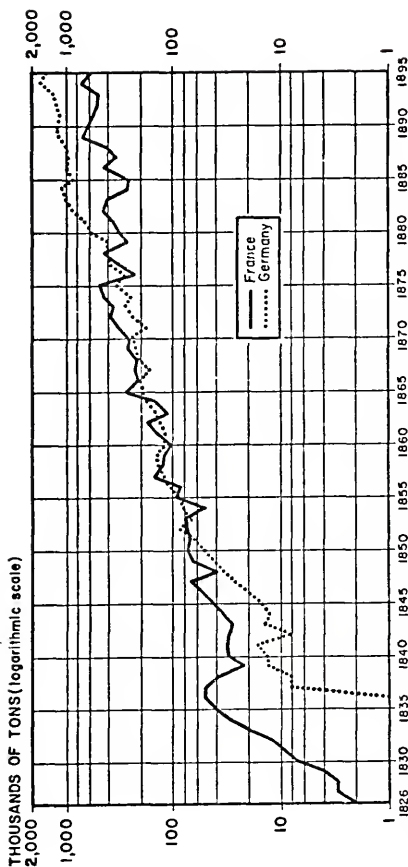
INDEX NUMBERS OF LONDON SUGAR PRICE AND VOLUME AND VALUE
OF VINCENTIAN SUGAR EXPORTS, 1854-1886

of estate ownership by absentee firms and the unwillingness of these owners to invest in technical innovations left no choice except to continue cultivating sugar cane on the estates.⁷⁶ This went on until the turn of the century, when curtailment of production in the island became unavoidable. The effects of an economic depression in England in 1894, a hurricane in the island in 1898, and a volcanic eruption in 1902, literally and figuratively, demolished the industry.

Beet Sugar Competition

The most important factor leading to the crippling of St. Vincent's sugar industry and all those which in the West Indies had failed to keep up with the times, was the rapidly growing competition of continental beet sugar during the second half of the 19th century.⁷⁷ (See Figure 16.) A singular motive lay behind the nationalistic European sugar race after 1850—the desire to capture an increasing share of the sugar market in Britain, the largest sugar consuming market in the world at that time.⁷⁸

Muscovado sugar production in the smaller West Indian colonies, such as St. Vincent, although precariously unstable, was guaranteed so long as the duties in the United Kingdom on foreign-grown sugar favored British colonial imports. The periodic lessening of protection, beginning with the Sugar Duties Act of 1846, jolted Vincentian sugar producers but still left a margin of profit, which was, in essence, the difference



Source: Noel Deerr, *The History of Sugar*, (2 vols., London: Chapman & Hall, Ltd., 1949), II, pp. 471-494.

FIGURE 16
BEET SUGAR EXPORTS FROM FRANCE
AND GERMANY, 1826-1895

between the cost of producing and selling 1 ton of muscovado sugar.⁷⁹

Production costs were little altered during the period of East Indian immigration in St. Vincent.⁸⁰ As European beet sugar appeared in the British market place, especially after the total equalization of duties in 1854, the long-run trend was downward. Once the duties were eliminated in 1874, the door was open for beet sugar to drive cane sugar from the United Kingdom. The complicated arrangements made by the major beet sugar producing governments for drawbacks on excise duties in their respective countries subsidized, in effect, the abnormally low selling price of beet sugar for export.⁸¹ Refiners in England using muscovado sugar before 1874 were happy to receive the flood of cheaper beet sugar after that date. From 1872 to 1875, the price of sugar in London dropped 23 per cent, from 26 shillings per hundredweight to 20 shillings. Five-year average prices ranged from 23 shillings per hundredweight in 1873, to 21 shillings in 1877, and to 19 shillings in 1882. (See Figure 9.) With relatively constant production costs, the planters' profit margin could only decline during the years of beet sugar competition.

The impressive growth rates for France, Germany, and Austria-Hungary contrasted with the relatively stable growth rates of West Indian production. Bounty-assisted beet sugar imports into Britain increased by 281 per cent from 1865 to 1878, while British West Indian sugar imports increased by only 9 per

cent, indicative of the stagnation in the Caribbean sugar colonies. St. Vincent was slightly above average, showing a 15 per cent growth in production over the same period, from 1865 to 1878—the resurgent period of the Vincentian sugar industry. The replacement of colonial cane sugar by beet sugar in Britain necessitated a shift in trading patterns for the West Indian colonies, so that the United States gradually came to be the chief destination of sugar from the British Caribbean.⁸²

After 1876, German and Austrian-Hungarian beet sugar exports to the United Kingdom expanded by the simple expedient of altering their export duty from a given weight of the raw sugar itself to a given weight of beet roots before extraction of the sucrose had taken place. This prompted the German and Austrian-Hungarian growers to cultivate beet roots with a high sucrose content and the refiners to improve the process of extracting the additional sucrose from the crushed beet root.⁸³ The effect was to force France to reciprocate by further subsidizing its sugar exports to meet this competition. From 1880, Germany became the leading exporter of beet sugar to Britain, coupled with the other European producers who competed for the same market. (See Figure 16.) "Dumping" of beet sugar began in 1880 and by 1888, there was an increase of 62 per cent in imports to the United Kingdom. When the dumping first began, British West Indian cane sugar accounted for only 19 per cent of the home country's sugar imports.⁸⁴

The price of sugar in London plummeted from 21 shillings per hundredweight in 1880 to 12 shillings in 1887. (See Figure 9.) In 1883, St. Vincent went into an irrecoverable decline which devastated the industry, and, apart from a short-lived recovery in the 1880s, forever eliminated sugar from the paramount position it had held in the economy since 1764. (See Figure 7.) With the London price of sugar at or below the cost of production, the Vincentian muscovado industry had, therefore, to seek another outlet to cushion this depression. By 1887, over 80 per cent of St. Vincent's sugar exports went to the United States, where countervailing duties had so far barred imports of European beet sugar.⁸⁵ Yet by 1892, arrowroot had superseded sugar as the main export commodity in the colony.⁸⁶ (See Figure 17.) For the next 60 years, Vincentian sugar production was, in fact, subsidized by the British Government, with output fluctuating according to the demand for St. Vincent's other primary products— arrowroot, cotton, and bananas.

Natural Disasters

Two monumental natural disasters within the space of 4 years destroyed not only estate works but put the final seal on St. Vincent's sugar production as a major export enterprise. On September 11, 1898, a hurricane swept over the island, killing 288 persons, rendering 30,000 homeless, and destroying £225,000 (1898 value) worth of property.⁸⁷ Most of the sugar and arrowroot works were ruined by the hurricane,

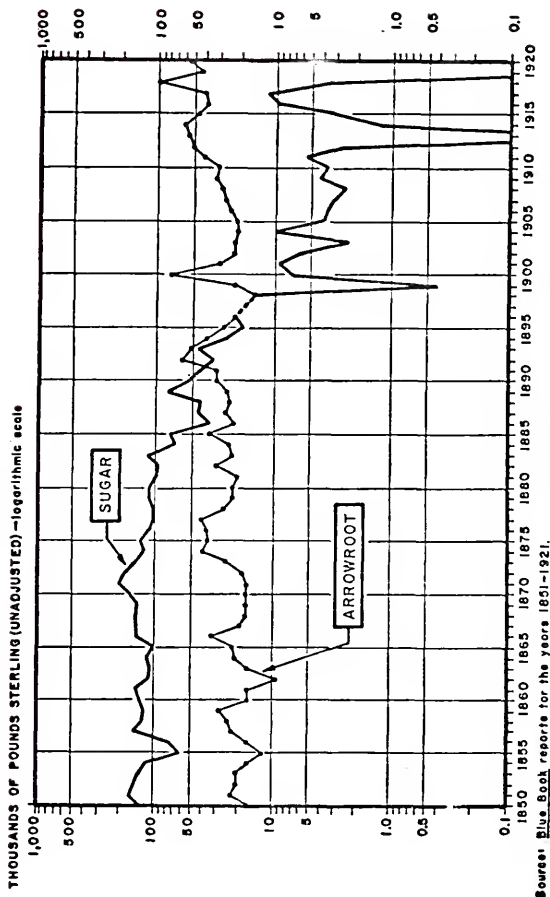


FIGURE 17

VALUE OF SUGAR AND ARROWROOT STARCH EXPORTS, ST. VINCENT, 1850-1920

reducing the number of functioning sugar mills from 54 in 1896 to 30 in 1898 and the number of estate arrowroot works from 50 to 35.⁸⁸

On May 7, 1902, the day before Mt. Pelée erupted in Martinique, killing 40,000 persons, the Soufrière volcano on the north end of St. Vincent exploded, killing between 1,300 and 2,000 people, mainly estate laborers along the Windward coast. Much of the fertile land in the northern section of the island was covered by volcanic debris and rendered infertile. In addition, many of the remaining sugar mills left standing after the 1898 hurricane were destroyed. (See Figure 18.)

These natural calamities marked the tragic end of an era. The economic and social forces which had debilitated the Vincentian sugar industry since the end of slavery were reinforced by the violent forces of nature. The way was cleared for monocultural commodities other than sugar to shape the economic livelihood of the island.

Epilogue

The sugar industry of St. Vincent, buffeted as it was by natural disasters and competition from more efficient producers, managed to survive into the 20th century, although on a greatly diminished scale. Muscovado sugar production in the colony continued throughout the First World War, owing to the stimulation of a short-lived price increase.⁸⁹

From 1926 to 1962, St. Vincent's sugar cane industry was

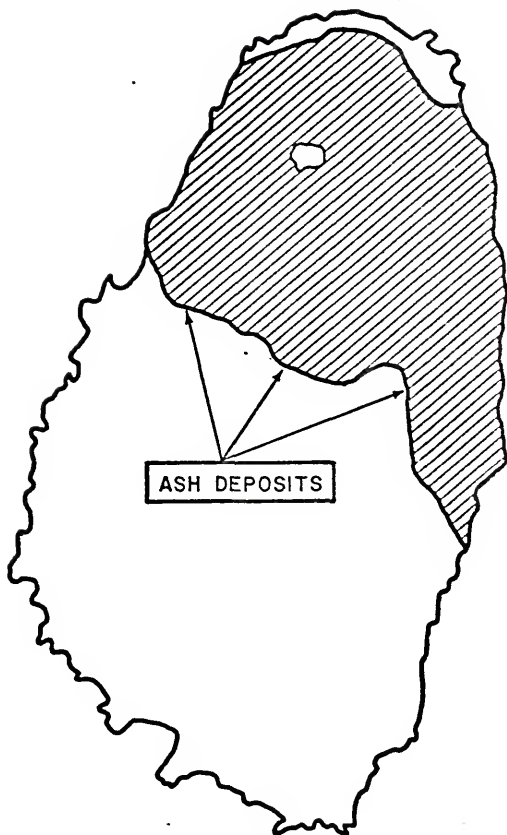


FIGURE 18
EXTENT OF ASH DEPOSITS FROM ERUPTION OF
SOUFRIÈRE VOLCANO, ST. VINCENT, 1902

divided between the manufacture of semi-refined sugar ("dark crystals") by a single, modern factory (Mt. Bentinck) and the production of molasses syrup by small growers using primitive equipment. All of the colony's semi-refined sugar exports to the United Kingdom were regulated, after 1932, by annual export quotas.⁹⁰

In spite of improvements made in the industry after the Second World War, the island's sugar factory opted to discontinue production in 1962, following a long and politically-oriented labor strike. The lingering interest in Vincentian sugar production in the 20th century was, in effect, a nostalgic indulgence. The limited area of the island plus the lack of sufficient investment capital to provide a large-scale enterprise meant that sugar production could never return to its early-19th-century status.

Summary

This chapter reviews the plight of the Vincentian sugar industry after the emancipation of slaves. It discusses the labor problems subsequent to emancipation and the waves of alien labor immigration that developed to meet this situation. In addition, the effects in St. Vincent of the West Indian Encumbered Estates Act are considered. Finally, there is an examination of the economic factors leading to the demise of the sugar industry, including the elimination of sugar duties and the emergence of European beet sugar competition.

NOTES TO CHAPTER IV

¹ Estates Book, a table entitled: "An Account showing the total number of Slaves annually employed, and quantity of Produce raised in the island of St. Vincent and its Dependencies, from 1819 to 1824, both inclusive" [with annual additions entered through the year 1851], p. 241. Another table in the Estates Book entitled: "Inter-Colonial Apportionment" shows that St. Vincent was reimbursed for 22,997 slaves, while the above-mentioned table shows 18,794 slaves in 1834. The author attributes the discrepancy to the differentiation between agricultural field hands and those employed in the towns or as artisans, not directly involved in the production of sugar, coffee, cocoa, and cotton.

² William G. Sewell, The Ordeal of Free Labor in the British West Indies (2d ed.; London: Sampson Low, Son, & Co., 1862), p. 79.

³ For these calculations, the author used the estate labor force figures for 1844 (6,619) given in Table 3 and the population estimate for 1844 (27,248) given in The Colony of St. Vincent, Blue Book, 1850, pp. 134-135. [Hereafter, this reference will be referred to simply as Blue Book, with the appropriate year given.] For the earliest comparable year before 1844, the estate labor force for 1831 was chosen from Table 4 (16,818) and the population estimate for the colony for the same year (25,954) from R. R. Madden, A Twelvemonth's Residence in the West Indies (London: James Cochran & Co., 1835), pp. 53-54.

⁴ This figure includes all ages. Using the percentage male in the total 1844 population, 46 per cent, the author calculates that the number of possible male workers out of the 20,629 people living off of the estates must have been less than 9,500. This includes male children whose numbers cannot be calculated but must be omitted from the possible "outside" labor force.

⁵ Blue Book, 1854, p. 155; Blue Book, 1855, p. 150.

⁶ Sewell, Ordeal of Free Labor, p. 79; Blue Book, 1861, pp. 162-163.

⁷ J. W. Root, The British West Indies and the Sugar Industry (London: Hazell, Watson and Viney, Ltd., 1899), p. 7.

⁸David L. Niddrie, "Eighteenth-Century Settlement in the British Caribbean," Transaction and Papers, The Institute of British Geographers, Publication No. 40 (1960), p. 79.

⁹Three historians of the West Indies mistakenly place St. Vincent among the "underdeveloped" islands following emancipation, that is, those islands with plenty of tracts of fertile land still not under cultivation when the slaves were freed. As will be shown, the interior of St. Vincent was uncultivated because it was too rugged and inaccessible. Little good land remained unalienated after 1838. See: E. H. Carter et al., History of the West Indian Peoples (4 vols., 2d rev. ed.; London: Thomas Nelson and Sons, Ltd., 1965), IV, pp. 108-115.

¹⁰Saint Vincent, Census, 1861, [Tables] 11 through 16, n.p.

¹¹David L. Niddrie, Land Use and Population in Tobago, The World Land Use Survey, Monograph 3: Tobago (Bude, Eng.: Geographical Publications Limited, 1961), p. 18; M. G. Smith, Kinship and Community in Carriacou (New Haven: Yale University Press, 1962), pp. 26-27; Sewell, Ordeal of Free Labor, passim.

¹²Niddrie, Land Use and Population in Tobago, pp. 25-27; Carter et al., West Indian Peoples, IV, pp. 108-116; Henry H. Breen, St. Lucia: Historical, Statistical, and Descriptive (London: Frank Cass and Company Limited, 1970; original publication by Longman, Brown, Green, and Longmans, 1844), p. 309; Judith Ann Weller, The East Indian Indenture in Trinidad, Caribbean Monograph Series No. 4 (Rio Piedras, P. R.: Institute of Caribbean Studies, University of Puerto Rico, 1968), p. xix; W. K. Marshall, "Social and Economic Problems in the Windward Islands, 1838-65," in The Caribbean in Transition, ed. by F. M. Andic and T. G. Mathews (Rio Piedras, P. R.: University of Puerto Rico for the Institute of Caribbean Studies, 1965), pp. 246-252.

¹³The earliest discussion of "squatting" in the agricultural returns of St. Vincent by the Stipendiary Magistrate authorized to investigate this practice states:

"There is no squatting, if by the term, may be understood the occupation and cultivation of Crown land. It is impossible to say whether some of the [estate] Mountain lands hired, or cultivated by the labourers [sic] in lieu of higher wages in accordance with the system of hiring which obtain in the Colony, be Crown or private property, but there is no such thing as Systematic Squatting. The peasantry have no inducement to seek a more independent mode of existence and the Colony is too small to admit

of concealment were such a thing attempted."

See: Blue Book, 1855, p. 212. For similar reports, see: Blue Book, 1858, p. 249; Blue Book, 1859, p. 256; Blue Book, 1861, p. 264; Blue Book, 1863, p. 268.

¹⁴ Blue Book, 1855, p. 212.

¹⁵ Blue Book, 1865, p. 264.

¹⁶ One reason given for the absence of systematic squatting was that

" . . . all the available lands in the Colony have been granted or settled and the proprietors are sufficiently alive to their own interests to prevent any unauthorized occupation. . . . The fertility of Crown Lands is great but the inaccessibility and the primeval forest cover needed to be cleared makes the risk too great to chance losing all if one is evicted."

See: Blue Book, 1863, p. 268.

¹⁷ The higher reaches of the interior have generally been recognized as Crown lands, but it was not until 1912 that all lands situated 1,000 feet or more above sea level were officially reserved by ordinance as Crown lands. The St. Vincent Government Gazette, 1912, p. 249. [Hereafter this reference will be cited as Government Gazette, with the appropriate year following it]

¹⁸ All of these crops are discussed in Chapter V.

¹⁹ Marshall, "Problems in the Windward Islands," pp. 247-254.

²⁰ One such act passed in St. Vincent in 1838 was entitled

"An Act to Render null and void all contracts for the performance in this Colony of any service or labour [sic] in Agriculture or in or about the manufacture of Colonial Produce which may be entered into in any of the other of Her Majesty's possessions in the West Indies."

See: Acts of St. Vincent, 1855-1860, p. 168. This refers to an act passed on November 16, 1838.

²¹ William Law Mathieson, British Slavery and Its Abolition, 1823-1838 (London: Longmans, Green and Co., Ltd., 1926), p. 304. The daily wage rate (with cottage and provision grounds) in St. Vincent during the 1840s was 8 pence. See: F. R. Augier et al., The Making of the West Indies (London: Longmans, Green and Co., Ltd., 1960), p. 189.

In 1850, the monthly wage for praedial labor was 12 shillings, 6 pence, with cottage and provision grounds. See: Blue Book, 1850, p. 180. The 1865 praedial wage rate was 10 pence per day. See: Blue Book, 1865, p. 251.

In 1839, the comparable daily wage rates in the neighboring colonies were: Barbados, 10 pence; Tobago, 8 pence; Dominica, 4 1/2 pence. All of these included cottage and provision grounds. See: The Colonial Magazine, III (September-December, 1840), p. 57.

A worker in the United States (occupation unspecified) in 1859 received \$1.00 per day. See: Sewell, Ordeal of Free Labor, p. 288. The average agricultural worker in England in 1850-1851 earned 9 shillings, 6 pence per week. See: James Caird, English Agriculture in 1850-51 (2d ed.; London: 1852), p. 512.

²² Carter et al., West Indian Peoples, IV, p. 115. By paying a task wage, the proprietor could effectively reduce his labor costs by one-half or more because many jobs on the estate required more than one day to complete. Thus a laborer digging cane holes, if his task took 3 days, was paid 8 pence when his assignment was completed, not 8 pence per day for the 3 days.

²³ Augier et al., Making of the West Indies, pp. 191-192.

²⁴ Marshall, "Problems in the Windward Islands," pp. 236-237.

²⁵ International Sugar Council, The World Sugar Economy: Structure and Policies (2 vols.; London: International Sugar Council, 1963), II, p. 17. A few of the modern innovations were steam-driven crushing mills, vacuum pans for low-temperature boiling of the sugar syrup, and centrifuges for molasses extraction.

St. Vincent's planters introduced very few innovations because they felt that such additions to the system did not pay for the expense involved in modernization. See: Blue Book, 1854, p. 203.

²⁶ See n. 21 for a discussion of wage rates.

²⁷ G. W. Roberta, "Immigration of Africans into the British Caribbean," Population Studies, VII, No. 3 (March, 1954), p. 238.

28 Carter, et al., West Indian Peoples, IV, p. 128.

29 On July 9, 1845, the St. Vincent Board of Council and House of Assembly passed a law entitled:

"An Act to appropriate the sum of Money . . . mentioned, in payment of Bounty on the Importation of certain Agricultural labourers [sic] into this Island from the Island of Madeira."

This act provided for 1-year indenture contracts, a bounty of £4 for each adult worker, and a fund of £2,000 to pay the expenses of importation. In 1847, the term of indenture was raised to 3 years and the fund was expanded to £4,000.

30

G. W. Roberts and J. Byrne, "Summary Statistics on Indenture and Associated Migration Affecting the West Indies, 1834-1918," Population Studies, XX, No. 1 (July, 1966), Table 3, p. 129. This article is also reprinted by: Central Statistical Office, Trinidad and Tobago, Research Papers, No. 4 (December, 1967), pp. 59-68.

Another source indicated that the first shipload arrived in 1844, but this is unlikely, as the law governing such immigration was not passed until 1845. See: Robert M. Anderson, ed., The Saint Vincent Handbook (5th ed.; Kingstown: Office of the Vincentian, 1938), p. 35.

31 Eric Williams, Capitalism and Slavery (New York: Capricorn Books, 1966; original copyright by the University of North Carolina Press, 1944), p. 27; Carter, et al., West Indian Peoples, IV, p. 128; and Augier, et al., Making of the West Indies, p. 197. Many of the original Madeiran immigrants to St. Vincent became naturalized British subjects following the enactment of "The Aliens Naturalization Act of 1866;" today it is possible to trace some of these families among the existing merchant class in Kingstown.

32

The Council and Assembly of St. Vincent passed an act in 1849 entitled: "An Act to regulate and make provision for the treatment of Liberated African Immigrants." See: Acts of St. Vincent, 1855-1860, p. 222. This law was cited in a later act of October 16, 1857, which revised the contract laws for immigrants.

33

Roberts, "Immigrations of Africans," p. 237. Also: Johnson U. J. Asiagbu, Slavery and the Politics of Liberation, 1787-1861:

A Study of Liberated African Emigration and British Anti-Slavery Policy (New York: Africana Publishing Corporation, 1969), pp. 23-33.

³⁴ Ibid., p. 43.

³⁵ As early as September, 1840, the St. Vincent Legislative Council made inquiries through its London agent to see if the home government had given authority for emigration to the West Indies from Sierra Leone. A request was made "for the present" for 300 laborers and £4,500 was promised for this purpose. No Africans were brought to St. Vincent, however, until 1849. The Colonial Magazine, IV (January-April, 1841), p. 132.

³⁶ Roberts, "Immigration of Africans," Appendix, Table 1, p. 259

³⁷ By an act passed on October 16, 1857, entitled: "An Act to alter the Law of Contracts with regard to Immigrants and for the encouragement of Immigration and for the General Regulation of Immigrants," all liberated Africans under the age of 15 years who were landed in St. Vincent were to be automatically indentured until they reached the age of 18 years. Blue Book, 1857, pp. 75-76.

³⁸ Weller, East Indian Indenture in Trinidad, pp. xxi and 2-3.

³⁹ Ibid., p. 123, footnote. The term "coolie" was the British expression designating any low caste East Indian. In time, it was used to refer to all Indians except the highest castes.

⁴⁰ Acts of St. Vincent, 1855-1860, p. 168. On October 16, 1857, four important laws were passed in the St. Vincent legislature: (1) an act to alter the law of contracts with regard to immigrants; (2) an act to levy a tax on exports of sugar, rum, molasses, arrowroot, cocoa, and cotton to help defray the cost of importing "coolies;" (3) an act to authorize the raising of loans to help promote alien workers in the island; and (4) an act to appropriate part of the General Revenue of the colony for immigration purposes.

⁴¹ The Immigration Law of 1857 set a minimum indenture term of 10 years for East Indians (5 years for other nationalities), but this was reduced to 8 years in 1859.

42

Blue Book, 1857, pp. 75-76. If an East Indian served his entire required term under indenture to estates, he was given free passage to India. If, however, he paid for the commutation of the last 3 years of indenture or worked outside of estate agriculture, he had to pay the Immigration Agent of St. Vincent £7,5,10 for back passage.

43

Government Gazette, 1874, p. 183. If a "coolie" received his "certificate of industrial residence" but chose to re-indenture himself for only 3 more years, he was denied the £10 bounty and the free passage to India.

44

The percentage distribution of all East Indians indentured to estates between 1861 and 1880, by parish, is as follows: Charlotte, 51 per cent; St. George, 29 per cent; St. Andrew, 7 per cent; St. Patrick, 10 per cent; St. David, 3 per cent. Government Gazette for the years 1861 through 1880, passim.

45

The benefits from a sustained work force of East Indian field laborers was first indicated in the 1865 agriculture report, by which time 560 indentees had arrived in St. Vincent:

"There is improvement in more perfect tillage and field work. This is more conspicuous where the proprietors of Estates command regular labor. The Asiatic Immigrants have generally materially assisted this progressive movement."

See: Blue Book, 1865, p. 255.

46

In 1874, Great Britain finally eliminated all duties on sugar imported into the home market; thus, as the price of sugar dropped, users began substituting the more refined vacuum-pan sugar for the lower grade muscovado. See: R. W. Beachey, The British West Indies Sugar Industry in the Late 19th Century (Oxford, England: Basil Blackwell, 1957), p. 46.

47

The first official indication of a problem of emigrating labor was in the minutes of the Legislative Assembly in 1873 when the Lieutenant-Governor complained of a net loss of 399 native Vincentian laborers and "coolies" in that year. See: Government Gazette, 1874, p. 30.

48

Ibid.

49 Government Gazette, 1875, p. 55.

50 Government Gazette, 1876, p. 69. The author's calculations are taken from a table entitled: "Return of the No. of Coolies and of the Money expended on Immigration for this Island during the 15 years since the origination of the Immigration Fund."

51 The author's calculations were taken from the Blue Books for the years 1874 through 1882, passim.

52 This was Law No. 12, of April 21, 1879, entitled: "An Ordinance to prevent the unauthorized enlistment and abduction of Immigrant Laborers for Foreign parts." Penalties were imposed on unauthorized persons "who may be found enticing Asiatic Immigrants, or their descendants, to leave the Colony for service beyond its limits" See: Blue Book, 1879, p. 57.

53 As late as 1885, the Government was forced to sell debentures in order to pay off an outstanding debt of £5,000 in the Immigration Fund. See: Government Gazette, 1885, p. 435.

54 Root, British West Indies and the Sugar Industry, pp. 10-11.

55 Ibid., p. 9.

56 Marshall, "Problems in the Windward Islands," pp. 239-240.

57 The following discussion of the means available for disposing of encumbered estates, unless otherwise noted, is taken from: Beachey, British West Indies Sugar Industry, Chapter I, pp. 1-39, passim.

58 Before the Encumbered Estates Act was passed, a mortgagee creditor with overdue interest could move onto a defaulting estate, but the burden of re-establishing or maintaining cultivation then rested with him as the nominal owner. In addition, he was responsible for the existing liens on the property, which he had no legal right to sell. If a sale was forced upon the legal owner, the proceeds generally did not satisfy even part of the accumulated claims. A creditor could secure a judgment against the personal belongings and goods of the mortgagor, but too often there was little against which to levy.

A "foreclosure bill in Chancery" by a mortgagee was a way to bring a defaulting estate under a court-appointed "receiver" who worked the plantation, if possible, and paid off creditors as far as the operating income would provide. After a 12-month receivership and court appraisal of its value, an estate could be offered for sale and the proceeds distributed according to a priority list of liens; however, receivership and legal expenses retained first priority. Unless a property was extremely valuable, the benefit to creditors from its forced sale under receivership was minimal. See: Beachey, British West Indies Sugar Industry, Chapter I.

⁵⁹ The St. Vincent Encumbered Estates Act was passed on May 27, 1856, and was transmitted to England for Royal assent on June 5, 1856. Amendments and clarifications of the original Parliamentary act of 1854 in England delayed official proceedings until 1858 when it went into effect in St. Vincent.

⁶⁰ Blue Book, 1855, p. 196. All the other parishes suffered similarly in the depths of the sugar industry's depression.

⁶¹ Sewell, Ordeal of Free Labor, p. 83.

⁶² Beachey, British West Indies Sugar Industry, p. 23. The present author's investigations uncovered a book of minutes entitled: Encumbered Estates, 1858-1882 [with additions to 1888], which included a table entitled: "A Return of the Estates sold under 'The Encumbered Estates Act' since they came into force in the Island of Saint Vincent, in the year 1856." This table gives the date of sale of each estate, the name of the estate, the total acreage, the owner before the sale, the petitioner for sale, the purchaser, the price paid, and miscellaneous remarks concerning the sale.

⁶³ This is according to the records in the minutes filed in the Registrar-General's office in Kingstown, St. Vincent. (See n. 62.)

⁶⁴ Beachey, British West Indies Sugar Industry, p. 5.

⁶⁵ If the present parish boundaries in St. Vincent are used, the following is a breakdown of the number of estates sold:

ENCUMBERED ESTATES SOLD, 1858-1882

Parish	Number of Estates	Acres
Charlotte.....	9	4,586
St. George.....	5	1,340
St. Andrew.....	2	933
St. Patrick.....	$\frac{1}{2}$	28
St. David.....	$\frac{2}{6}$	1,569

Source: "Encumbered Estates, 1858-1882," a table entitled: "A Return of the Estates," n.p. (See n. 62 above.)

⁶⁶ Beachey, British West Indies Sugar Industry, pp. 27 and 33.

⁶⁷ Blue Book, 1862, p. 248.

⁶⁸ Blue Book, 1898, p. 176; also: Blue Book, 1902, p. 176.

⁶⁹ International Sugar Council, World Sugar Economy, II, p. 16.

⁷⁰ All of the Windward Islands had suffered production declines immediately after the emancipation of slaves, but all regained part of their lost position between 1840 and 1884.

⁷¹ The 5-year average for production was centered on 1840 and 1855, including the production 2 years before and after each base year.

⁷² Blue Book, 1858, p. 240.

⁷³ The Kingstown Police District's agricultural report for 1859 indicated, for example, that few innovations in sugar manufacture had been utilized and that

"... planters have generally gone back to old ways of making sugar with open pans, etc., which give more profitable returns. Tubular Steam Boilers are getting into use (where Steam is used), but Steam is not the chief power in this district."

See: Blue Book, 1859, p. 245; also see Appendix II in this study for a map showing the type of power employed by the sugar mills in 1854.

74

R. W. Beachey, "The Period of Prosperity in the British West Indian Sugar Industry and the Continental Bounty System, 1865-1884," Caribbean Historical Review, II (December, 1951), pp. 82-83.

75

Beachey, British West Indies Sugar Industry, pp. 45-60, passim.

76

St. Vincent was forced to suffer from adverse price movements in the sugar market, but, naturally, the slight contribution of Vincentian plantations had no effect on the overall price structure in England. The response of Vincentian sugar producers usually lagged about 2 years behind the London price. This was probably due to the 18-to 24-month growing season for the sugar cane.

77

International Sugar Council, World Sugar Economy, II, p. 12. The origin of sugar extraction from the temperate climate beet root goes back to the experiments of Andreas Sigismund Markgraf in 1747 in Germany. All of the major European powers of the 19th century encouraged sugar beet cultivation, but it was in France where the earliest large-scale production was stimulated by Napoleon in 1811 as a maneuver to free the country from dependence upon outside colonial sugar imports. France led Germany and Austria-Hungary in beet sugar production and exports until the early 1850s when Germany matched France's output. The rate of growth of production in Austria-Hungary was similar to that of France and Germany after 1860, surpassing the former after 1880.

78

Beachey, British West Indies Sugar Industry, p. 60.

79

From 1871 to 1872, the price of sugar in London was 25 1/2 shillings per hundredweight, or about £25,10,0 per ton. As long as production costs remained less than £25 per ton, a profit (on paper, at least) could be made.

80

Beachey, British West Indies Sugar Industry, p. 53.

81

Ibid., Chapter II, 40-60, passim. Also: Beachey, "The Period of Prosperity," pp. 79-99, passim. These two references discuss in greater detail the complexities of the sugar beet bounties and drawbacks.

⁸² Beachey, British West Indies Sugar Industry, p. 57.

⁸³ Ibid., pp. 50-51.

⁸⁴ Ibid., p. 54.

⁸⁵ Report on the Blue Book for 1887, No. 25, St. Vincent
(London: Eyre and Spottiswoode, 1888), p. 5.

⁸⁶ Between 1883 and 1892, sugar production declined 58 per cent. In 1902, sugar production was down to 262 tons, a decline of 97 per cent in the 19 years since beet sugar had flooded the British home market.

⁸⁷ Government Gazette, 1898, p. 333. Also: Report on the Blue Book for 1898, No. 281, St. Vincent (London: Eyre and Spottiswoode, 1899), p. 16.

⁸⁸ Blue Book, 1901, p. X-1.

⁸⁹ Caribbean Commission, The Sugar Industry of the Caribbean, Crop Inquiry Series No. 6 (Washington, D.C.: Caribbean Research Council, 1947), p. 189.

⁹⁰ Under the British Preference Tariff of 1932, 200 tons of sugar could be exported each year to the United Kingdom. In 1933, this was increased to 400 tons, and after 1939, the quota was 500 tons. See: Report on the Agricultural Department, St. Vincent, 1932, p. 20; and Report on the Agricultural Department, St. Vincent, 1939, p. 12. By 1962, the annual export quota was 1,500 tons.

CHAPTER V

MAJOR AND MINOR ECONOMIC CROPS IN THE VINCENTIAN ECONOMY

As the Vincentian sugar industry faced the distress of more cheaply produced beet sugar competition in the last half of the 19th century, minor agricultural industries grew in prominence, first through the efforts of the small farmers and later, the efforts of the economically depressed estate owners. From the time of slave emancipation until the present day, arrowroot, cotton, and banana cultivation ebbed and flowed according to the varying demand for the leading commercial crops. This chapter will document the main factors influencing each of the major and minor cash crops which have appeared during and after the rise of the sugar cane industry. In addition, there will be an examination of the balance of trade over the last 100 years.

The Arrowroot Starch Industry

Arrowroot had been raised in many British West Indian islands in the past, but, more than any other single crop, it has been more closely identified with St. Vincent than with any other area of the world. St. Vincent shared the vagaries of sugar cane production with all of the British Caribbean territories, but it was unique in its dependence upon arrowroot starch for much of its economic livelihood throughout most of the 20th century.

Nineteenth-Century Birth of the Industry

With the abolition of slavery, the production of cash crops, other than sugar cane, gradually took on increasing importance. Estate owners committed to sugar cane cultivation devoted little of their land to arrowroot if sugar cane could be raised. Only on land considered unsuited to sugar cane was arrowroot sometimes planted.¹ The small farmers of the island, however, began cultivating arrowroot for commercial purposes soon after emancipation.²

Some of the earlier statistical returns of St. Vincent produce indicate an abrupt increase in the production of arrowroot starch during the apprenticeship period (1834 to 1838). Between 1831 and 1833, the average annual production of arrowroot starch had reached 3,200 pounds. Yet by the end of 1834, production increased to 25,600 pounds; the average annual production for the years of apprenticeship was over 37,000 pounds.³

The first few years of freedom were dislocating for both ex-slaves and estate owners, and when both settled down to more normal working relationships, arrowroot production increased even more rapidly. From 1843 through 1851, production averaged 315,000 pounds a year.⁴

After a visit to St. Vincent in 1859, an historian of the period remarked how sugar monoculture was being challenged by arrowroot, the product of the small proprietors.⁵ Although both the small cultivators and the estate proprietors contributed to the arrowroot harvest, it was the former, less restricted by tradition, who were apparently willing to engage in alternative cash crop production.⁶ Without access to sugar processing facilities, the

small farmers had to grow a crop that could be sold without any need of elaborate and expensive preparation. For this reason, arrowroot (in addition to cotton, cocoa, coconuts, and spices) was a favorable option open to the Vincentian farmers. Unfortunately, economic diversification was not followed extensively by the large planters whose major shift out of sugar production occurred only near the end of the 19th century, when little rational choice remained.

Throughout the 1850s arrowroot production increased, although it faced periodic gluts in the British market. The starch produced was primarily utilized in the English cocoa and silk industries (the latter using it as a stiffening agent). After the equalization of duties on sugar in 1854, more attention was focused on arrowroot until the revival of sugar production following the enactment in St. Vincent of the West Indian Encumbered Estates Act in 1856 and the era of indentured East Indian immigrant labor. The removal of all sugar duties in 1874 and the subsequent large-scale competition of European beet sugar inevitably led to greater concentration in St. Vincent on arrowroot. (See Figure 19.)

By 1877, starch exports accounted for 23 per cent of the total exports, decreasing slightly during the next few years, but definitely reflecting a trend away from sugar manufacture after the dumping of beet sugar in the British market by Germany in 1882. From 31 per cent of the export earnings in 1886 and 1887, arrowroot starch provided 52 per cent in 1892, the first occasion when sugar cane exports were superseded in value since the British acquired St. Vincent. (See Figure 20.)

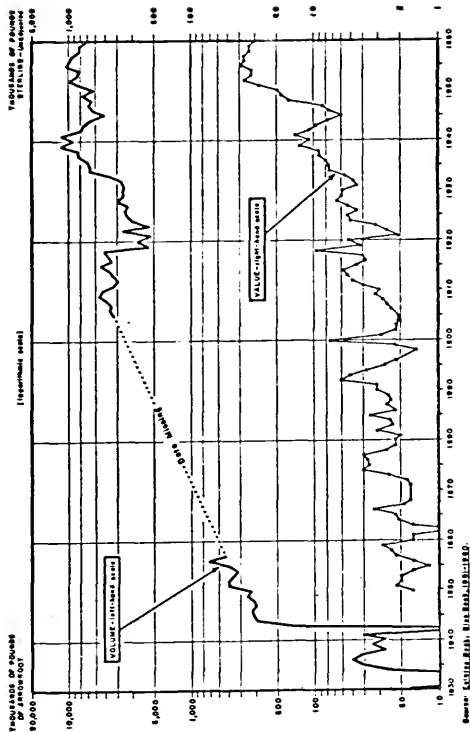


FIGURE 19
VALUE AND VOLUME OF ARROWROOT EXPORTS,
ST. VINCENT, 1830-1960

Source: LAURENCE, RICHARD. *St. Vincent, 1830-1960*.

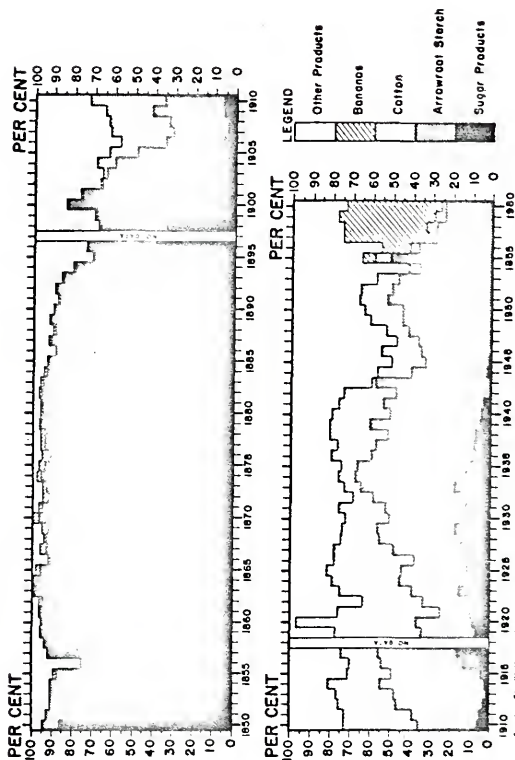


FIGURE 20
ANNUAL VALUE OF CHIEF EXPORTS, AS PERCENTAGE OF
TOTAL EXPORTS, ST. VINCENT, 1850-1960

Source: The St. Vincent Year Book for the years 1850 through 1960

Market Gluts in the United Kingdom

The arrowroot market in the United Kingdom was never large enough to absorb all of the starch produced by growers in St. Vincent. That which was sold had a reputation for poor quality, reflecting, in part, the inefficient manufacturing process of the small cultivators. The end-result was a low selling price.⁷

The 1898 hurricane and the 1902 volcanic eruption sealed the fate of large-scale sugar production by destroying its manufacturing equipment. Arrowroot, an immediately available catch-crop, filled the production gap after these disasters, accelerating the trend toward arrowroot manufacture, following the economic panic in Europe in the early 1890s. Prior to the hurricane in 1898, there were nearly as many estate arrowroot mills as there were sugar mills. In 1892, for example, estates operated 61 sugar mills and only 33 starch mills; there were 54 sugar mills and 50 arrowroot mills by 1896.⁸

Arrowroot was unquestionably the foremost export after 1892, but local growers were dissatisfied because the weak market in Britain led to depressed prices when large shipments were sent. Low prices usually discouraged the planting of the arrowroot rhizomes which, in turn, would result in a decreased supply after a few years. Later, prices would increase slightly, precipitating another round of planting, exporting, market gluts, low prices, and curtailed production. Furthermore, with many small growers competing with the estate producers, the marketing of the annual output of starch was made more difficult because of the absence of standardized grades. Peasant-produced starch was usually of a low quality, while the estates extracted a higher grade product.⁹

The problem of selling many non-standardized grades of prepared starch was additionally compounded by the use of separate merchant agents in London who dealt with individual exporters in St. Vincent. The small growers, who brought their arrowroot rhizomes to the larger estate mills for processing had to pay a fee for such services—a point of considerable dissatisfaction and contention in itself—and could choose either to sell their share to the estate or attempt to market it in England themselves through the merchant agent system. Lack of large-scale organized efforts before 1910 perpetuated the unstable market conditions in Britain because many individual sellers were competing for a limited market, depressing the average price for the arrowroot starch below what the estate growers thought was remunerative.¹⁰

The Competition of Other Local Crops

It was with considerable relief that the Imperial Department of Agriculture for the West Indies (established in 1898) was able to report yet another crop to displace arrowroot. The Sea Island cotton industry, which had started from scratch in 1903, was a boon to the arrowroot growers, for cotton cultivation could easily be introduced on to land formerly planted in arrowroot. This program ameliorated somewhat the problem of continuous overproduction of starch.¹¹ Nevertheless, the annual exports of arrowroot starch to the United Kingdom averaged approximately 5,000,000 pounds a year¹² (See Figure 19.) Because of

relatively stringent soil and moisture requirements, Sea Island cotton planting was restricted to lower level coastal locations while arrowroot could be, and was, grown extensively throughout the island.¹³ Such unrestricted edaphic conditions could only augment the annual harvest and aggravate the surplus burden.

During the 1909-10 crop season, the first efforts at organized marketing occurred when the St. Vincent Arrowroot Growers' and Exporters' Association was established. Its purpose was to set a minimum price below which it would not sell arrowroot starch in the European, Canadian, and United States markets. Such a decision was bound to prove a sensible maneuver in the short-run, but its impact was weakened by the unstandardized grades of starch produced by the Association. In 1913, for example, the Association set a limit of 3d per pound for good quality arrowroot starch, which promptly led the many unorganized small growers to flood the market in Britain with their characteristically low-grade commodity, thus adversely affecting the prices for all grades of starch.¹⁴

The outbreak of the First World War caused an immediate rise in food prices, especially for sugar, as the continental European beet sugar industry was disrupted. This prompted growers in St. Vincent to reduce acreage planted in arrowroot and cotton and to increase the area planted in sugar cane and cassava (the latter a substitute for wheat flour in the West Indian diet). It is remarkable what little stimulation was

needed to kindle the hopes for a return to large-scale sugar production in St. Vincent. After a record value of £95,828 in 1918, arrowroot exports declined in value and importance as a glutted market and low prices, combined with an unprecedented speculative rise in cotton prices at the close of the war, induced starch manufacturers to opt for Sea Island cotton cultivation. (See Figures 19 and 20.)

Accumulated stocks of starch in Britain following the end of the war caused the value of arrowroot exports to drop to £21,216 in 1921, a decline of 81 per cent in only 13 years. At this time, other markets were therefore sought as an outlet for Vincentian stocks. From 50 per cent to 70 per cent only of the annual arrowroot output was consigned to the English market in the early 1920s, while the remainder went mainly to North American customers.

The Emergence of the United States Market

Failure to sell the entire annual British consignment of arrowroot starch was a direct blow to the Vincentian economy because so many farmers were personally affected. Unsold stocks in England acted as an inhibitor of further arrowroot plantings in St. Vincent, and without alternate customers, the island would have to abandon its principal crop.

Good fortune intervened in 1924 when the United States submitted its first large order for starch. As late as 1923, only 62,852 pounds of arrowroot starch had been exported to the

states; the following year, in 1924, 376,843 pounds or 13 per cent of the total annual supply of starch was shipped to the United States—a 500 per cent increase in 1 year, (See Table 6.) By 1927, the United Kingdom and the United States shared the market almost equally.

TABLE 6
ARROWROOT EXPORTS TO PRINCIPAL MARKETS,
BY VOLUME AND PER CENT, 1922-1932

Year	Total Exports (pounds)	United States		United Kingdom	
		Pounds	Per Cent	Pounds	Per Cent
1922	3,627,401	55,088	2	1,727,152	48
1923	2,177,182	62,852	3	1,577,372	72
1924	2,952,535	376,843	13	1,952,830	66
1925	3,189,740	649,977	20	2,017,723	63
1926	3,291,553	914,379	28	1,739,054	54
1927	3,195,478	1,147,096	36	1,346,885	42
1928	3,870,420	1,408,672	36	1,933,436	50
1929	3,573	1,078,093	30	1,529,599	43
1930	3,590,348	1,084,536	30	1,496,300	42
1931	3,532,327	1,980,809	56	1,017,193	29
1932	3,704,833	2,036,728	55	1,122,621	30

Source: Report on the Agricultural Department, 1932, p. 20.

The expanding market for arrowroot was sustained and strengthened in 1930 by the Government's creation of a statutory body for the cooperative marketing of the starch. On December 23, 1930, the St. Vincent Arrowroot Growers' Association was established to provide for the rational disposal of the supply of starch. All arrowroot was to be sold only through this organization.¹⁵

An immediate effect of the Government executive decision was that of offering to prospective customers, particularly those in the United States, a reduced number of quality grades of starch. Prior to the establishment of the Arrowroot Grower's Association, 26 different grades of starch had been sold. Under the control of the Association, this number was reduced to 5. Because of the guaranteed standardization of quality, therefore, the United States placed an order in 1931 for nearly 2,000,000 pounds, an increase of 83 per cent over its purchase of the year before. (See Table 6.) In 1931, the United Kingdom lost its primary position as the leading importer of St. Vincent arrowroot starch to be replaced by the United States. The growth of the new American market had been rapid—from 13 per cent of the total annual export in 1924, its share grew to 30 per cent in 1930 and to 54 per cent in 1931.

Unlike its English counterpart, the American market did not face price depressing gluts; instead, it took an increasing proportion of the output at a growing price. Arrowroot starch production was, essentially, a world monopoly for St. Vincent

permitting the Arrowroot Growers' Association to quote higher prices as demand pressed upon supply and costs of production increased.¹⁶

When the world economic depression started in 1929, its effects were evident in St. Vincent as the value of total exports fell 39 per cent from 1928 through 1932. Arrowroot exports suffered, as did all of the colony's raw material exports, but the rate of decline in the starch sector was less than the rate of decline for the colony as a whole. Arrowroot starch exports declined by 30 per cent from 1928 through 1932, while cotton, for example, fell 67 per cent in value. In fact, the quantity of arrowroot exported declined by only 9 per cent from 1928 to the low year of 1931. The volume contraction was cushioned by the United States' demand which expanded greatly after 1930. (See Figure 19.)

The slow post-depression recovery of the Sea Island cotton industry caused many small cotton growers to shift to arrowroot production, an industry, if judged by quantity of output of starch, which was essentially an estate enterprise. In 1939, the highest recorded export of arrowroot took place, as 11,759,849 pounds were sold. The small producers supplied only 29 per cent while the large estate growers supplied 71 per cent.¹⁷ A strong American demand in the late 1930s compensated for the diminished English order resulting from the declaration of war in Europe.

After the United States' entry into the Second World War, its demand for arrowroot slackened. In addition, St. Vincent faced

deteriorating production conditions through its inability to secure adequate wartime shipping space and the high freight rates. Labor emigration to Trinidad and the Netherlands Antilles severely hampered arrowroot cultivation, as did the rising costs of domestic transportation.¹⁸ Arrowroot exports declined 56 per cent in volume from 1941 to 1945.

With wartime conditions in effect throughout the British West Indies, the prices of food soared to the extent that many Vincentian farmers switched from cotton and arrowroot to food crop cultivation, especially to cassava and sweet potatoes, which found ready markets in the intercolonial trade of the Caribbean.¹⁹ The corresponding share of arrowroot production by small cultivators declined throughout the war, indicating the attention given to growing food provisions. (See Table 7.)

TABLE 7

ESTIMATED PERCENTAGE PEASANT AND ESTATE ARROWROOT PRODUCTION, BY CROP SEASON, ST. VINCENT, 1940-1945

Crop Year	Peasant	Estate
	(percent)	(per cent)
1940-41	29	71
1941-42	27	73
1942-43	20	80
1943-44	20	80
1944-45	19	81

Source: Report on the Agricultural Department, 1945, p. 3.

Supply Difficulties and Distress in the Arrowroot Industry

After the conclusion of the Second World War, the American demand for arrowroot starch was rekindled and proved to be exceedingly strong. Operating with virtual monopoly powers, the governing board of the St. Vincent Arrowroot Growers' Association was able to raise the unit price of starch with impunity. Throughout the late 1940s and the 1950s, the average price increased substantially. (See Table 8.)

TABLE 8
AVERAGE PRICE PER POUND OF ARROWROOT,
DECENNIALLY, ST. VINCENT, 1910-1960

Year	Value of Exports ^a (£000)	Quantity of Exports ^a (000 lbs.)	Average Price (pence per lb.)
1910	36	4,797	1.80
1920	47	3,169	3.56
1930	55	3,654	3.61
1940	117	9,723	2.89
1950	238	7,604	7.51
1960	318	7,421	10.28

^aThis is a 5-year average figure, centered on the given year.

Source: Author's calculations taken from totals given in the annual reports of the Agricultural Department of St. Vincent.

Nevertheless, the Government and the Association desired a greater output to meet the demand in the existing seller's market. During the first 2 post-war crop seasons, small farmers were offered 50 per cent of the value of material needed by them to extend arrowroot cultivation in an attempt to meet the demand.²⁰ After the second year of this program, the inducement was curtailed as cultivators began making a voluntary switch to arrowroot production following a post-war drop in the price of ground provisions in the inter-colonial trade area. By 1947, approximately 3,500 acres of arrowroot rhizomes were being planted. Overall production, however, was still accounted for primarily by the more efficient large estates. From 79 per cent of the total output in 1946, estate-processed arrowroot increased to 87 per cent in 1953.

Arrowroot's share of total exports increased from 32 per cent in 1945 to a zenith of 52 per cent in 1951. (See Figure 7.) The United States market, which absorbed approximately three-quarters of the annual production of Vincentian arrowroot starch, began facing mounting difficulties of supply satisfaction. Small farmer production diminished in importance after 1953, as banana cultivation made its appearance. The spectacular popularity of banana cultivation among the multitude of small growers severely hampered the Arrowroot Growers' Association's efforts to maintain a satisfactory supply. In the remarkably short time from 1954 (when the St. Vincent Banana Growers' Association was formed) to 1957, arrowroot lost its primary position in the export economy.

Thereafter, the single large customer in the United States complained of insufficient supplies and constantly rising prices. As late as 1960 (the terminal date for this study of St. Vincent), the supply of arrowroot starch lagged behind a strong demand. By this time, the starch industry was on the way to passing out of prominence.²¹

The Cotton Industry

Cotton cultivation in St. Vincent has been a persistent economic activity throughout most of the recorded history of the island. The first French settlers along the Leeward coast and those who abided in many of the Grenadine islets to the south raised cotton as one of the mixed crops in their agricultural schemes. It was not until after Britain's acquisition of St. Vincent in 1763 that cotton cultivation waned on the "main" island, although it continued for nearly 2 centuries throughout the Grenadine dependencies, which were physically ill-adapted to sugar cane, coffee, and cocoa. The history of the cotton industry revolves around the production of 2 basic types of cotton plants—the Marie Galante variety found in the Grenadines and the famous Sea Island cotton introduced into the "main" island after the beginning of the 20th century.²² Marie Galante cotton never became a prominent cash crop in the colony's export trade, however, it has remained the basic variety of cotton on the dry Grenadine islands until the present day. Sea Island cotton became the mainstay of the cotton industry within a remarkably short time after its introduction and was identified in the 20th century

with St. Vincent in much the same way that arrowroot had been. St. Vincent maintained a monopoly not only on arrowroot but also on the world's finest long staple (fiber) luxury cotton.

The Cotton Trade in the Late 18th Century

It is common knowledge that the French settlers in the Lesser Antilles raised cotton as only one of a variety of cash crops on their small farms, but there are no records available to indicate how much was actually raised in St. Vincent before the British obtained the colony following the Seven Years' War. Two years after the Treaty of Paris, signed in 1763, 13,000 pounds of cotton were shipped from St. Vincent to England.²³ This was the product of the French leasehold settlers on the Leeward coast of the mainland, as the produce from the Grenadines was generally shipped out via Grenada in the early years after British administration began.²⁴ By 1770, St. Vincent's cotton exports had increased to 64,714 pounds.²⁵ Production continued to increase because of the rapidly expanding demand for cotton in England, induced by the cotton machinery inventions and improvements in the 1760s and 1770s.²⁶

General disruptions of shipping between the West Indies and Britain during the American War of Independence caused a backlog of cotton stocks in the British Caribbean colonies in the early 1780s. This was followed by a flood of exports after the war, resulting in a record shipment from St. Vincent in 1787 of 761,880 pounds, the zenith in the colony's cotton trade.²⁷ (See Figure 21.) This coincided with the burgeoning cotton exports throughout the British West Indies that were eagerly demanded in the home market.

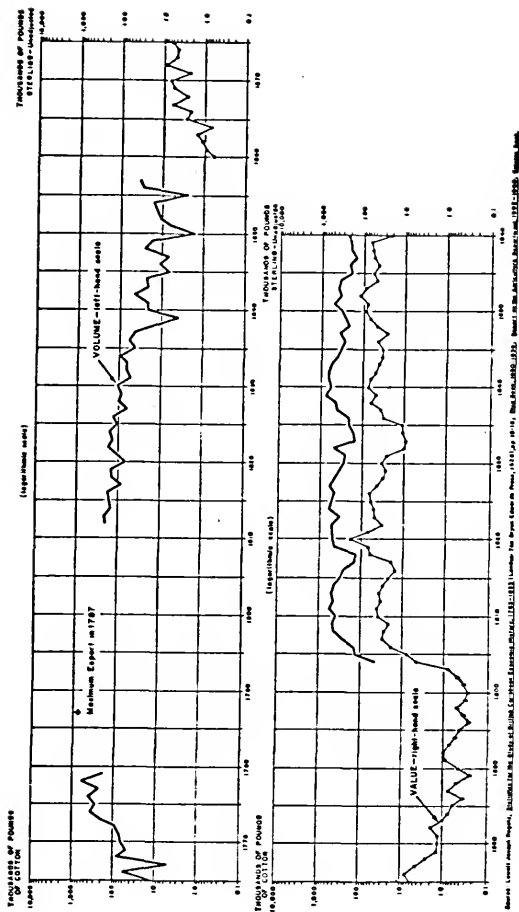


FIGURE 21
VALUE AND VOLUME OF COTTON EXPORTS, ST. VINCENT, 1765-1960

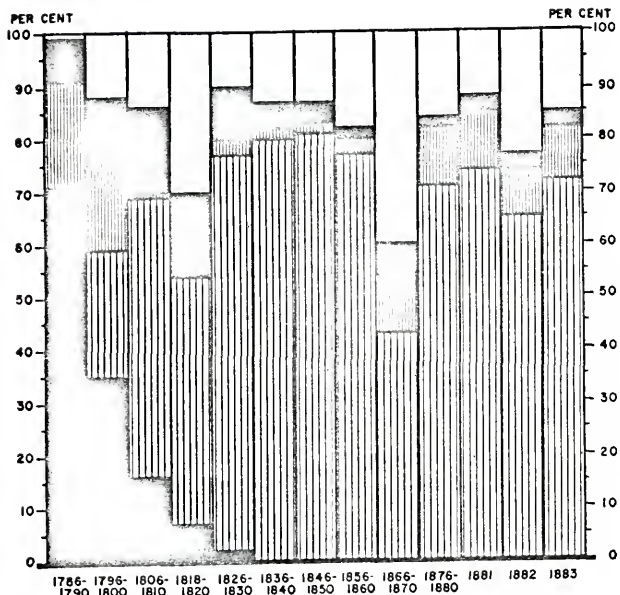
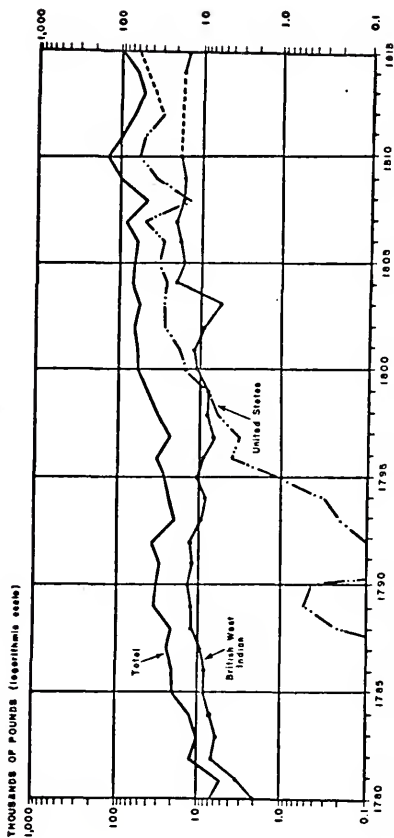


FIGURE 22

PERCENTAGE DISTRIBUTION OF COTTON IMPORTS
TO GREAT BRITAIN FROM MAJOR SUPPLIERS,
1786-1883



Source: Michael M. Edwards, *The Growth of the British Cotton Trade, 1780-1815* (New York, Augustus M. Kelly, 1967), Appendix C, pp. 280-281.

FIGURE 23
VOLUME OF BRITISH WEST INDIAN AND UNITED STATES COTTON
EXPORTS TO GREAT BRITAIN, 1780-1815

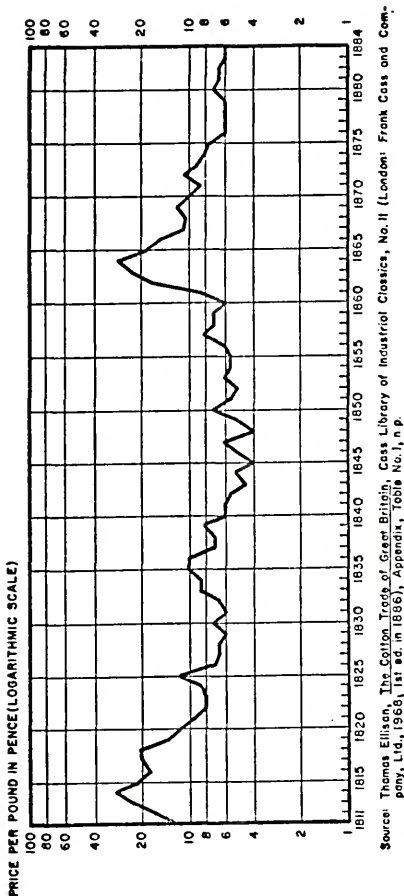


FIGURE 24
AVERAGE PRICE OF COTTON IMPORTS TO
GREAT BRITAIN, 1811-1884

During the period from 1786 to 1790, the British Caribbean supplied 71 per cent of Great Britain's cotton imports. (See Figure 22.) Naturally, the English cotton spinners wanted a guaranteed source of the raw fiber and looked to their West Indian territories, but this became increasingly less possible as sugar monoculture came into prominence in the newer Ceded Islands, and displaced cotton.²⁸

The black revolt in Saint Domingue in 1791 drastically reduced shipments of French sugar and cotton to the European continent, forcing an increase in the prices of both commodities. Although favorable profits existed in both industries, sugar cultivation proved to be more remunerative. Sugar cultivation in St. Vincent, although temporarily hampered by the Second Carib War (1795 to 1797), regained its momentum when peace was restored. The insatiable demand for cotton to feed the textile factories in England was being met by United States cotton growers who had multiplied their cotton plantings along the Sea Islands of South Carolina, Georgia, and northern Florida and had obtained higher yields by improving methods of cultivation.²⁹ The American cotton trade, which had started in 1784 with only 8 bales of low quality cotton sent to England, reached nearly 500,000 pounds by 1793. In that important year, Eli Whitney patented his cotton gin, allowing American growers to expand their area of planting greatly beyond the narrow strip of land bordering the Sea Islands, for they were able to plant and clean the more easily grown Upland variety of cotton (Gossypium hirsutum) over a much wider geographical area.³⁰ The output from the newly cultivated inland coastal plain along the Atlantic seaboard yielded so well that the American cotton trade seriously rivalled that of the British West Indies by the end of

the 18th century. It was impossible for the exhausted soils of the older West Indian colonies to continue supporting a cotton regimen. In addition, the newer colonies, such as St. Vincent and the other Ceded Islands, had invested extensively in sugar manufacturing equipment which they were unwilling to abandon, especially at a time when sugar cultivation was so profitable. 31 There was, in fact, no comparison between the potential for expansion in the American South and the small West Indian islands.

The Cotton Trade in Decline, 1800 to 1850

After 1800, the British Caribbean cotton trade declined steadily as it faced overwhelming competition from the more abundant and more cheaply produced cotton of the United States. (See Figures 22 and 23.) By 1802, the United States had become the largest supplier of raw cotton to the English textile mills. 32 Meanwhile, St. Vincent diminished its exports of Marie Galante cotton from the highwater mark of over 700,000 pounds in 1787 to 205,613 pounds at the outbreak of the war between the United States and Great Britain in 1812. (See Figure 21.) By the end of the first 2 decades of the 19th century, the British Caribbean represented a mere 7 percent of Britain's cotton imports. (See Figure 22.)

As the American South expanded its production, prices steadily trended downward, from 29 1/2d per pound in 1814 (the last year of war between Britain and America) to slightly less than 6d per pound in 1829. (See Figure 24.) St. Vincent's exports followed a similarly declining curve from 205,613 pounds in 1814

to only 86,688 pounds in 1829, a loss of 58 per cent in volume. The colony was thus, more than ever, a "sugar island" during the 19th century.

With the coming of slave apprenticeship and emancipation in the 1830s, St. Vincent's cotton industry, confined entirely to the Grenadine dependencies of Bequia, Ilot a Quatre, Mustique, Canouan, Mayreau, Union, and Petit St. Vincent (see Figure 25), quickly passed from an estate enterprise to a small cultivator activity.³³

Wide fluctuations in cotton production continued after emancipation; however, the trend was downward. It is evident from the available records of the period, that the nadir of St. Vincent's cotton trade (in terms of quantities exported) was reached in 1850, when a mere 1,560 pounds of Marie Galante cotton were produced. (See Figure 21.) It is not improbable that this decline was the result of the extremely low prices of cotton in the Liverpool market, the center of cotton buying in England. The price for American Upland cotton (the standard against which other varieties were judged) in 1845 and 1848 reached slightly more than 4d per pound.³⁴ (See Figure 24.)

The Cotton Industry in the Second Half of the 19th Century

Throughout the remaining 50 years of the 19th century, St. Vincent's cotton industry was confined to the Grenadine islands of Mustique, Canouan, Mayreau, and Union. Bequia, Ilot a Quatre, and Petit St. Vincent had abandoned such cultivation by the time of slave emancipation.³⁵

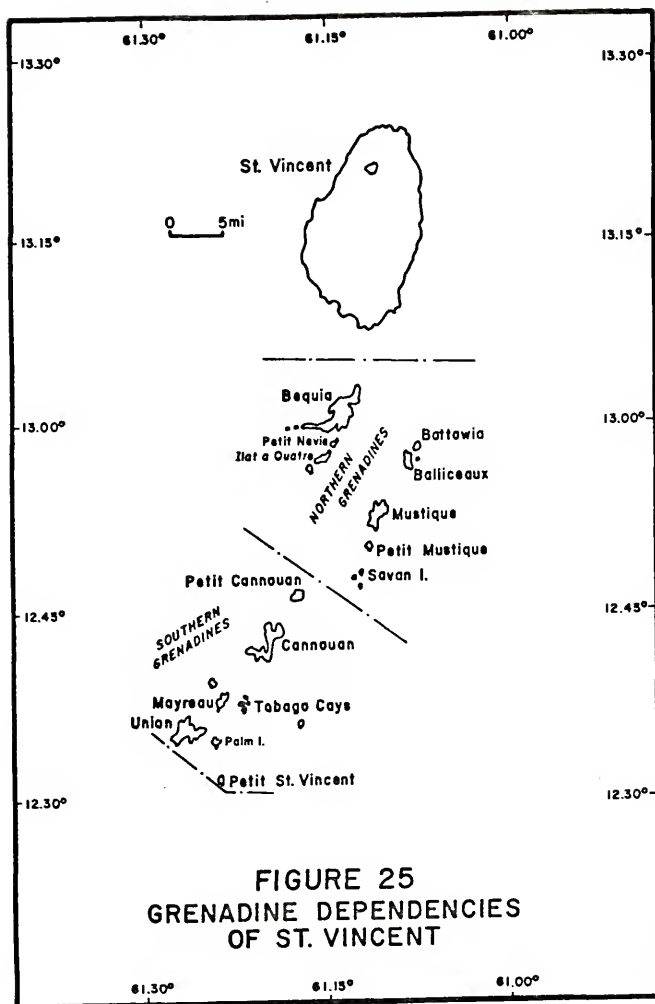


FIGURE 25
GRENADINE DEPENDENCIES
OF ST. VINCENT

Exports of Marie Galante cotton lint followed a trend in line with cotton prices in Liverpool. From a nadir in exports in 1850, St. Vincent gradually expanded its cotton trade in the 1850s and, particularly, in the 1860s and 1870s, a direct response to the demand created in England during the American Civil War. (See Figures 21 and 24.) Federal blockades of southern cotton-shipping ports reduced the stocks of raw cotton in England, resulting in the famous Lancashire "cotton famines" of the 1860s. Prices sky-rocketed as the English buyers sought to obtain cotton from alternate sources, such as India, Egypt, and Brazil.³⁶ The British West Indies made its meager contribution, but the Caribbean colonies provided less than 0.5 per cent of Great Britain's imports during the years of high prices throughout and after the Civil War in the United States.³⁷

St. Vincent was not unduly disturbed by the vagaries of the cotton trade, for it experienced a resurgence of its sugar industry in the 20 years following the arrival of the first indentured East Indian "coolies" in 1861. Their role in cotton cultivation was nil, since all the indentured immigrant laborers were assigned to the large sugar estates on the "main" island. Marie Galante cotton in the Grenadines was cultivated primarily on the shares cropping system (metayage, metayer, or metairie) by individual small cultivators and was generally of low quality and yield, as most of it was inter-cropped with ground provisions.³⁸ Despite a slight improvement in the Vincentian cotton industry between 1860 and 1880, the value of cotton exports was relatively insignificant in the balance of trade.

During the best years of the cotton trade in the 1870s, cotton exports did not exceed 4 per cent of the total value of St. Vincent's exports.³⁹ (See Figure 26.)

The malaise and severe depression in the sugar industry following the elimination of sugar duties in 1874 and the competition from bounty-assisted beet sugar after 1880 (vide supra Chapter IV.) adversely affected the general health of St. Vincent's export crops, including cotton. Coincidental with the growing depression in the sugar industry, St. Vincent's economy suffered the ill effects of the British trade depression between 1875 and 1878.⁴⁰

The remaining 2 decades of the 19th century were years of insignificant productivity for St. Vincent's cotton industry. The annual value of Marie Galante cotton exports was nominal. From £1,260 in 1880, cotton exports declined in value to £279 in 1900. (See Figure 26.) A destructive hurricane in 1898 could do little more damage to the industry than had already been inflicted a few years earlier by the Lancashire cotton milliners' decision to spin finer quality yarns from longer staple cotton, unavailable in the British Caribbean before the 20th century.⁴¹

The Introduction of Sea Island Cotton to St. Vincent

The depressed economic conditions in the British West Indies resulting from temperate beet sugar competition in the 1880s lasted throughout the 1890s. Great Britain's response was the dispatching of a commission of inquiry, the West Indian Royal Commission of 1897, to the Caribbean colonies in order to investigate

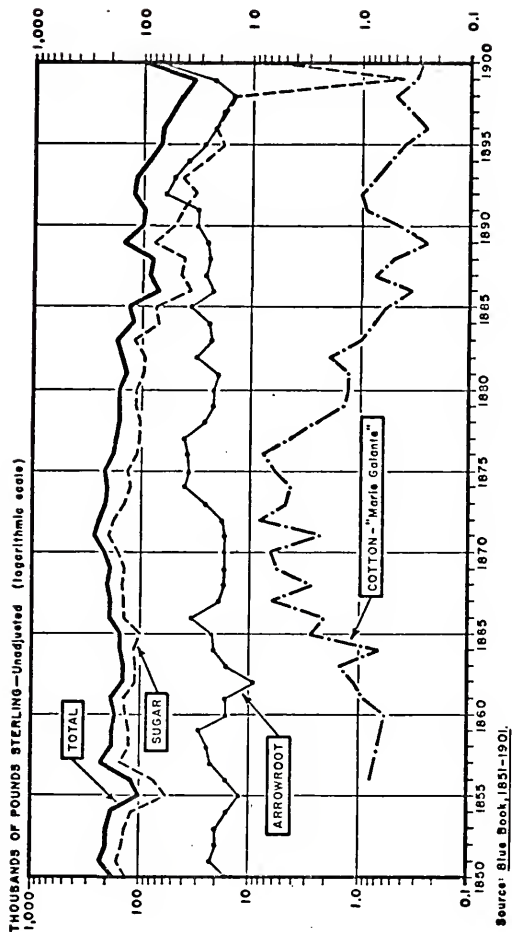


FIGURE 26
VALUE OF CHIEF EXPORTS, ST. VINCENT, 1850-1900

their individual economies and to make suggestions concerning possible alternative economic crops. The need to provide jobs for agricultural laborers was paramount at this time, as many small farmers had already left their homes to seek employment in other higher-paying British colonies in the West Indies and in several Latin American countries.⁴²

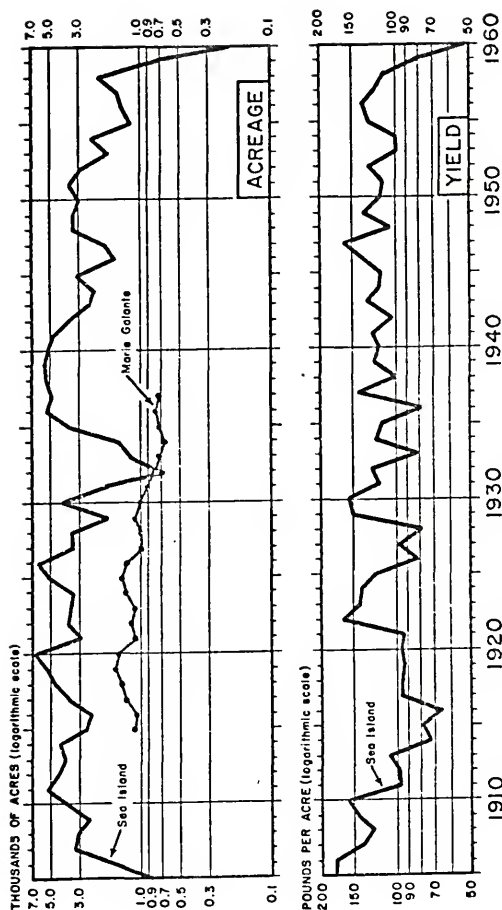
An important outcome of the Royal Commission's recommendations was the establishment of the Imperial Department of Agriculture for the West Indies as a research and advisory agency. This organization began its work immediately, and one of its earliest proposals was for the experimental planting of cotton in the various islands. It had been generally agreed that unless the sugar industries of the West Indies could be rationalized and centralized (an unlikely event), the economic burden would have to fall on another commodity. Cotton seemed extremely opportune at that time for several reasons: (1) English spinners were producing finer yarns which required high quality cotton fibers; (2) since 1898, the United States had been consuming more of its own cotton, thus reducing the supply available to Britain; (3) the soil and climate in the West Indies had proven favorable to cotton more than 2 centuries earlier; (4) there were large parcels of abandoned sugar cane land, cleared and ready for use; (5) the labor force, if sufficient numbers could be obtained, would be lower paid than in the United States; (6) the highest quality of cotton—Sea Island—could be easily grown in the West Indies; (7) the system of cotton cultivation appealed to the large planters because the regimen fitted into

the estate system; and (8) the estate growers and small cultivators could engage in an industry which would not necessitate large capital outlays for equipment and buildings and could provide an export within 6 to 8 months after planting.⁴³

In 1900, the first experimental planting of Sea Island cotton in the West Indies was undertaken in St. Lucia, while experimental cotton was introduced into St. Vincent in the 1902-03 cotton season.⁴⁴ At that time, about 300 acres of land in St. Vincent and Bequia Island were seeded with new varieties of Marie Galante, American Upland, and a small amount of Sea Island cotton.⁴⁵ The Sea Island plots proved better in every way than the Marie Galante and Upland varieties. In the 1904-05 season, acreage increased by more than 100 per cent, with all the new area being planted in Sea Island cotton.⁴⁶ (See Figure 27.) Within 8 years, the acreage of Sea Island had mushroomed to 5,068 acres, placing the cotton industry in a dominant position in the economy.⁴⁷ To organize the marketing of cotton in the United Kingdom, the Government of St. Vincent formed the St. Vincent Cotton Growers' Association in 1905, an indication of the importance of this new crop.

The Early Years of Development and the First World War

Prior to the First World War, St. Vincent's Sea Island industry relied upon English fears that stocks of cotton for the textile industry would diminish, owing to the growing threat from the boll weevil in the United States, the decision of American growers to sell more to their own spinners, and the



Source: Compiled by the author from data in the Report on the Agricultural Department for the years 1906 through 1964.

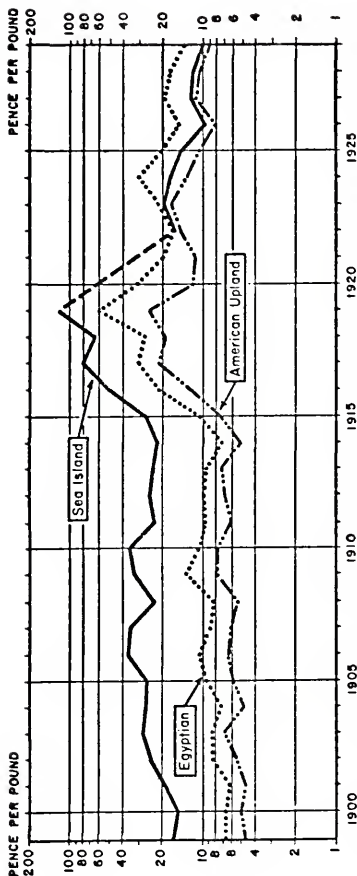
FIGURE 27
ACREAGE AND YIELD OF COTTON, ST. VINCENT, 1905-1960

the increasing demand for long-stapled cotton in the automobile tire industry. Prices before the war therefore favored Sea Island, although competition from its closest competitor, Egyptian cotton, tended to keep prices from rising too high.⁴⁸ (See Figure 28.)

An unfortunate effect arising out of expanded cotton acreages in St. Vincent before the First World War was the tendency for cotton yields to decline, especially as the small growers took up the crop. High prices, such as existed before the war, were more often as not used to provide a greater profit at the expense of greater yields per acre.⁴⁹ (See Figure 27.) This was particularly true after 1910 as greater numbers of small cultivators entered the cotton industry.⁵⁰

At the outbreak of war in Europe in 1914, the prices of most commodities in foreign trade declined. Until that time, Sea Island was not expected to maintain its high price, but the strategic importance of cotton in the airplane construction industry was reflected in a rapid increase in its price.⁵¹ (See Figure 28.)

St. Vincent suffered from a poor growing season in 1914 and high wartime freight charges; therefore, its first wartime crop sold badly. Cotton prices throughout the war rose to unexpectedly high levels, but they did not match the corresponding increase in the price of sugar (including the muscovado sugar of the West Indies). A rapid change-over to sugar cane cultivation in St. Vincent caused land formerly under cotton to be planted in sugar cane.⁵² The marked decline in



Source: John A. Todd, "Comparative Cotton Prices," *The Empire Cotton Growing Review*, VI, No. 4 (October, 1929), Table I, p. 336; *ibid.*, VII, No. 4 (October, 1930), Table I, p. 306; and *Report of the Agricultural Department, 1920*, p. 14.

Note: Cotton price from 1920 through 1921 estimated for Sea Island cotton.

FIGURE 28
AVERAGE ANNUAL PRICES FOR SELECTED COTTON
VARIETIES, LIVERPOOL, 1899-1929

the volume of Sea Island exports in 1916-17 resulted from the decision of the estate growers to opt for sugar cane. Since they grew 60 per cent of the colony's cotton, their decision to abandon cotton temporarily adversely affected the industry's earnings. (See Figure 29.) Gradually, however, areas under cotton increased once again as prices increased throughout the war, owing to the disastrous fall in American Sea Island production as the boll weevil continued to spread through the Atlantic coast Sea Islands.

The Cotton Boom and Slump, 1919 to 1928

After the Armistice in Europe in 1918, a short-lived slump in the price of all cottons occurred. Sugar production in St. Vincent returned to its pre-war level of low profitability, but the price slump kept Sea Island acreage from expanding in 1919. This hesitation together with a poor growing season and the ravages of the boll weevil in the United States caused yet another speculative fear of short supplies in Britain the following year, driving prices up so high that Vincentian estate growers and small farmers brought 6,453 acres under Sea Island cotton, the largest cotton acreage ever recorded in the colony.⁵³ (See Figure 27.) At the same time, the value of the colony's exports reached £178,951, accounting for 60 per cent of the total exports for the boom year of 1920.⁵⁴ (See Figure 29.)

The deflationary slump following the boom of 1920 caused Vincentian growers to reduce their cotton plantings by 54 per

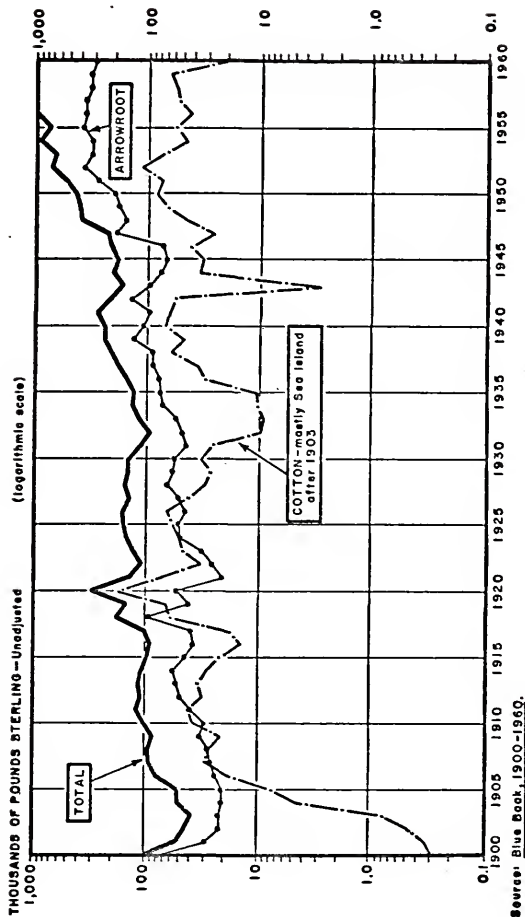


FIGURE 29
VALUE OF CHIEF EXPORTS, ST. VINCENT, 1900-1960

cent in a single year. (See Figure 27.) Once again, however, the collapse of the American Sea Island cotton industry, caused by the boll weevil in the Sea Islands of South Carolina, Georgia, and the northern coast of Florida as far south as the St. Johns River, stimulated an island-wide return to cotton cultivation until the mid-1920s.⁵⁵ This gave the British West Indies a virtual monopoly of the world's finest long staple cotton.⁵⁶ Such a monopoly, however, had value only if there was a sustained demand for the product.

Demand for Sea Island cotton, especially the extra-long staple variety found only in St. Vincent (and used in the fine lace trade) had been diminishing since 1920. The "fine spinners" in England had to seek larger, more dependable sources of long staple cotton after the American Sea Island trade collapsed during the First World War, and therefore began substituting Egyptian cotton (Sakel) for the more costly West Indian Sea Island variety. Price, above all else, was the main determinant in the decision to shift to the Egyptian varieties among the users of long staple cotton.⁵⁷

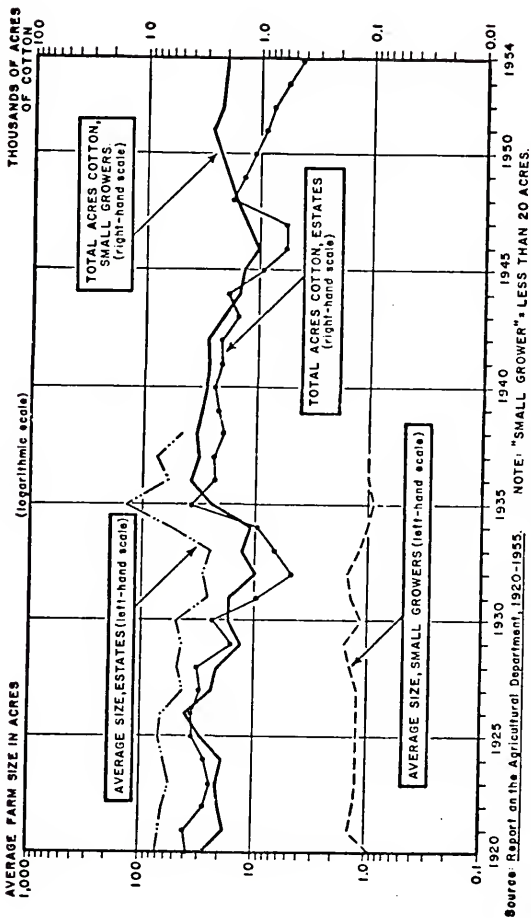
The slump in the cotton trade after the 1920 boom had adversely affected the fashion industry, especially the lace users, and indirectly hurt the Vincentian cotton trade, for the bulk of St. Vincent's "super-fine" Sea Island cotton depended very much on the lace makers in England for sales. It was reported that as the fashion industry recovered in the late 1920s, it did so in the sections of the trade which could use the cheaper Egyptian Sakel as a substitute.⁵⁸ Compounding the

situation in St. Vincent's Sea Island industry after the boom of 1920 was the growing competition from artificial silk and the budding rayon industries. Once again, convenience and price were the determining factors in the switch to substitute fibers.⁵⁹

The gradual price deterioration throughout most of the 1920s was matched by the general decline in the number and area of estates growing cotton in St. Vincent. (See Figure 30.) Between 1926-27 and 1929-30, the area sown by the large estates and the small growers remained constant. The smallest difference in these years lay in the average size of the small farmers' parcels of land, which fluctuated between 1.2 and 1.5 acres per farmer.⁶⁰ The movement out of cotton by estates and small growers alike was a response to improvements in the arrowroot industry, as the United States began buying more Vincentian arrowroot starch after 1924.

The Great Depression and the Second World War, 1929 to 1945

Before the "crash" of October, 1929, the St. Vincent Cotton Growers' Association had to make a drastic change in the cotton planting season to overcome mountain losses from insect and rain damage to ripening bolls of the Sea Island cotton. The new "late-planting" period, instituted in 1929, resulted in a short-lived reduction in cotton plantings as the small farmers feared risking their crops under such an innovative program.⁶¹ The success of the new planting season did, however, lead to a 1-year revival of the industry before the beginning of the world trade depression in 1929.



When the effects of the economic depression reached St. Vincent, both arrowroot and cotton, the chief export crops, declined in acreage and value in 1931, but in the following year, the value of arrowroot exports, assisted by large American purchases, recovered and improved rapidly throughout the depression years, reaching a peak in 1939. The Sea Island cotton industry, however, entered its worst slump since its beginnings in 1903 and remained in a depressed condition until a belated recovery emerged in 1935. (See Figure 29.) The long delay between slump and recovery caused many estates to switch to arrowroot cultivation, much in demand in the United States as a source of starch. (See Figures 27 and 30.)

Throughout the world trade depression, the Sea Island cotton industry was unable to meet the continuing competition from Egyptian cotton and artificial silk.⁶² To alleviate some of the industry's problems, therefore, the West Indian Sea Island Cotton Association (W.I.S.I.C.A.) was established in 1933, with the aim of restricting output and reducing the unsold stocks accumulating in the Liverpool market.⁶³ Revitalization of the industry after 1935 was stimulated not only by W.I.S.C.A.'s organized efforts both in the West Indies and in Liverpool but, even more important, by the gradual rearmament of Great Britain in the late 1930s.

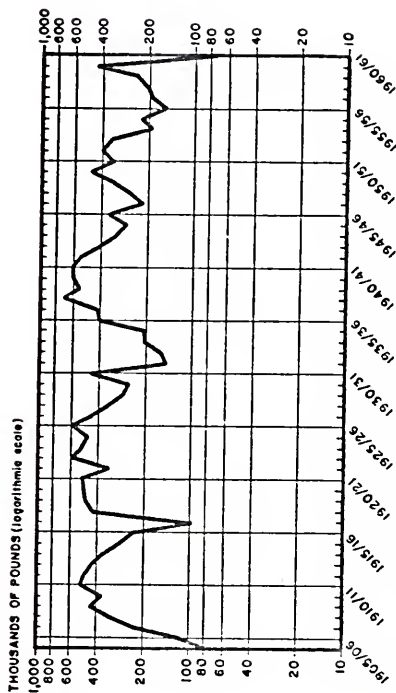
Much as in the First World War, Sea Island cotton became a strategic commodity for the war effort.⁶⁴ As soon as Britain entered the war, the Ministry of Supply (Cotton Control) negotiated contracts with the West Indian growers to purchase their entire crops each year at guaranteed prices. St. Vincent's "super-fine"

variety of cotton commanded the highest price and sold readily.⁶⁵ Yet in spite of a guaranteed price and market for their cotton, Vincentian growers, large and small alike, withdrew land from cotton as the war progressed. Three factors caused the reduction in cotton acreage: (1) the guaranteed price failed to keep up with the mounting costs of production; (2) the unexpectedly high prices for food provisions in the inter-colonial trade in the southern Caribbean area;⁶⁶ and (3) the labor shortages in St. Vincent after 1941.⁶⁷

From a total of 5,486 acres of Sea Island in 1939-40, the area decreased to 2,312 acres in 1944-45, a decline of 58 per cent in 5 years. (See Figure 27.) Estates threw land out of cotton more readily than the small farmers, so that by the end of the war, cotton cultivation in St. Vincent was essentially a small cultivator activity.⁶⁸ (See Figure 30.)

The Demise of the Sea Island Cotton Industry in St. Vincent

Following the war, a slump in prices in 1946 caused a further reduction in cotton plantings in the island by nearly 50 per cent. The improvement in prices between 1948 and 1952, however, resulted from a new method of disposing of the cotton in the United Kingdom and the stockpiling of cotton during the Korean War.⁶⁹ The period from 1949 to 1952 marked the last prosperous era for St. Vincent's Sea Island industry. (See Figures 29 and 31.) Although the quantity of cotton lint exported in this 4-year period averaged 387,000 pounds a year, it was well below the average of 534,000 pounds a year between 1935 and 1940



Source: Report of the Agricultural Department, St. Vincent for the years 1905 through 1964.

FIGURE 31
VOLUME OF SEA ISLAND COTTON LINT EXPORTS,
1904/05 - 1960/61

Conditions in the English cotton market and events in St. Vincent served to lessen interest in the cotton industry following the Korean War. First, the absence of a "futures" market in Sea Island cotton made cultivation precarious, as the growers had no indication before planting what the price would be. This was not a recent phenomenon but had been characteristic of the industry since the beginning of the century.⁷⁰ Secondly, in 1959, the "fine spinners" in England refused even to make forward purchases of Sea Island cotton, but decided, instead, to purchase their supplies as they needed them and at whatever price existed at the time.⁷¹

Thirdly, the extraordinary development of the St. Vincent banana industry after its inception in 1953 quickly captured the economic interests of the small growers. Within 3 years after the first banana shipments, the value of banana exports exceeded that of Sea Island cotton.⁷² Fourthly, cotton cultivation by the small growers was generally less profitable than that of the other major export crops.⁷³ The most attractive crop has usually been the one that provided the largest cash sum as quickly as possible after harvesting. Bananas fit this requirement better than any other crop in St. Vincent, so that by the late 1950s, more and more small growers as well as estates had turned to banana cultivation.

Finally, the Government's Central Cotton Ginnery was completely destroyed by fire in 1959. The failure to repair it doomed cotton cultivation in the island, as only a lower-value seed cotton could be exported. Reaction among cotton growers was immediate. Between the 1958-59 and 1960-61 cotton seasons, the

acreage of cotton in the island dropped by 90 per cent, from 2,100 acres to 220 acres. All estates gave up cotton cultivation after the fire. (See Figure 27.) By 1960, the industry was no longer a major economic enterprise in St. Vincent.⁷⁴

The Banana Industry

In the contemporary export economy of St. Vincent, bananas are paramount. The rapid development of this late-comer to the economic situation in the colony parallels the history of Sea Island cotton. From an insignificant beginning, the banana industry supplanted its rival industries—arrowroot and cotton—in a remarkably short time. Such success, however, helps to conceal several earlier abortive attempts to cultivate bananas for export.

The Early Banana History in St. Vincent

Banana cultivation was first mentioned as a possible commercial venture in 1898 as one of the recommendations of the West Indian Royal Commission of 1897.⁷⁵ Five years later, the first experimental banana exports were shipped to the United Kingdom. Unfortunately, this meager undertaking was a commercial failure.⁷⁶

No further interest was expressed in commercial fruit cultivation until the world trade depression of the early 1930s reached St. Vincent. In 1932, after a lapse of 30 years, bananas were again planted for a trade market, as St. Vincent and Canada signed reciprocal trade agreements. At about the same time, the Canadian National steamships replaced the former transport agents

operating in the southern Caribbean region.⁷⁷ Exports from the new Vincentian plantings averaged a mere 430 stems between 1932 and 1934.⁷⁸ (See Figure 32.)

In 1934, the Government of St. Vincent agreed to the formation of the St. Vincent Co-operative Banana Association to act as the local control and marketing body for bananas produced for sale outside of the colony. The Banana Association entered into a contract with the Canadian Banana Company (a subsidiary of the United Fruit Company) to supply all the Vincentian bananas available from 1936 to 1940 (later extended through 1942).⁷⁹

Banana cultivation, however, developed very slowly. By the end of 1934, only 230 acres of 'Gros Michel' bananas had been planted.⁸⁰ Several problems quickly appeared to reduce grower interest: (1) the unfamiliarity of the small growers with the methods of banana cultivation, hence, a hesitation to plant many of the fruit trees; (2) a scarcity of planting material; (3) poor transportation facilities between growers and the shipper, which resulted in much bruising of the fruit; and, most importantly, (4) the appearance of Panama disease in the 'Gros Michel' banana stands, especially in the interior valleys of the southeastern Windward coast.⁸¹

The area planted to bananas and the quantity of fruit exported continued to increase slightly in the following years, reaching a maximum of 1,100 acres in 1937 and 1938. (See Table 9 and Figure 32.) With the outbreak of the Second World War in Europe and the diversion of shipping from the Caribbean,

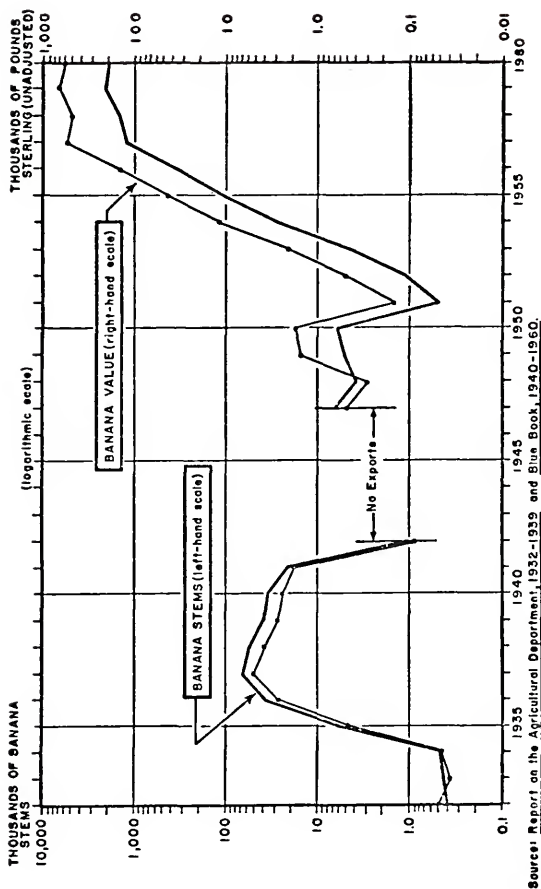


FIGURE 32
VALUE AND VOLUME OF BANANA EXPORTS, ST. VINCENT, 1932-1960

St. Vincent's banana industry immediately reflected the change through a decline in banana area from 1,100 acres to 500 acres by the end of 1939. After the peak year of exports in 1937, the value and quantity of fruit shipped to Canada declined, slowly at first, then more rapidly as the war and its attendant disruptions continued throughout the Caribbean.

TABLE 9

AREA OF BANANA CULTIVATION,
ST. VINCENT, 1934-1940

Year	Acres of Bananas	Year	Acres of Bananas
1934	230	1938	1,100
1935	550	1939	500
1936	1,000	1940	300
1937	1,100		

Source: Report on the Agricultural Department, for the years 1934 through 1940.

After completing its contract term in 1942, the Canadian Banana Company ceased buying Vincentian bananas and, thus put an end to St. Vincent's second unsuccessful attempt to maintain a banana industry. (See Figure 32.) In spite of the war-induced transportation difficulties, it is unlikely that the banana industry would have had any greater success, given the very profitable arrowroot production before and after the Second World War, the high profits to be made during the war in inter-island food trade (mainly with Trinidad), and the spread of Panama disease.⁸²

The Development of the Modern Banana Industry of St. Vincent

Between 1942 and 1947, there were no banana exports from St. Vincent, owing to the external disruptions caused by the war and the internal problems of transportation, labor shortages, and the spread of Panama disease.⁸³ In 1947, modest banana exports began again, marking the infancy of today's well-established fruit industry. It is likely that the banana trade between 1947 and 1953 was via St. Lucia⁸⁴ and consisted of both 'Gros Michel' and 'Lacatan' varieties of bananas.⁸⁵

As interest was generated in the planting of banana "suckers," it became feasible to provide enough fruit to induce a Dutch-owned fruit shipper to transport Vincentian bananas to market. The company, Geest Industries Limited, agreed, in 1954, to purchase the total available export supply in the island, guaranteeing, as it were, a market in the United Kingdom for the local fruit.⁸⁶ One of the contractual provisions, however, stated that there had to be a central organization within St. Vincent that would carry on negotiations with the transporting company. This resulted in the formation of the St. Vincent Banana Growers' Association. It was only one of several such organizations established throughout the Windward Islands (Dominica, St. Lucia, St. Vincent, and Grenada), all represented jointly by membership in a parent body, the Windward Islands Banana Growers' Association (WINBAN).⁸⁷

In addition to the new trading arrangement, there was a switch to a more favorable variety of banana—the 'Robusta' strain.⁸⁸ "Suckers" (young banana shoots) for new plantings

in St. Vincent were imported from St. Lucia and dispersed throughout the island, as it was considered more economical to begin the new trade with a plant more resistant to Panama disease (banana wilt).⁸⁹

In the 1950s, large numbers of small farmers experiencing a growing stagnation in the Sea Island cotton industry became eager converts to bananas. Income derived from an acre of bananas was higher than from all other crops and, more significant, the fruit could be harvested the year around, thus affording the small growers a steady supply of money.⁹⁰ The larger estates were similarly attracted to this new cash crop.

The rapid increase in banana acreage attests to the importance of the industry in the late 1950s. (See Table 10.) Production of banana stems for export proceeded at nearly an exponential rate through 1957, only 3 years after the Geest trade began.⁹¹ (See Figure 32.)

TABLE 10
AREA OF BANANA CULTIVATION,
ST. VINCENT, 1956-1960^a

Year	Acres in Bananas	Year	Acres in Bananas
1956	4,600	1959	6,300
1957	5,000	1960	6,300
1958	5,500		

^aIn 1961 and 1962, there were 6,000 acres and 5,500 acres respectively. A period of stagnation had developed and low prices prevailed.

Source: St. Vincent Banana Growers' Association,
"Banana Production: Cost and Profit,"
Kingstown, St. Vincent, 1962. (Mimeographed.)

Small growers were characteristic of the banana industry as it expanded. In 1958, 85 per cent of all banana growers farmed less than 5 acres of land each. Their holdings accounted for only 36 per cent of the acreage of bananas and 33 per cent of the total production.⁹² By 1961, approximately 80 per cent of the banana holdings were less than 5 acres in size. The small farmers occupied 41 per cent of the banana lands and produced only 35 per cent of the fruit.⁹³ It was therefore obvious that the small growers were considerably less productive than the larger growers.

After the initial 4-year surge in production, the banana industry reduced its rate of expansion. (See Table 11.) The heady venture into bananas inevitably brought ill-equipped farmers into the industry. Many farmers had gone into debt to start their fruit fields, so that when falling prices hit them between 1958 and 1961, the more inefficient were unable to survive. The period between 1958 and 1961 was a time of retrenchment for the industry, as the St. Vincent Banana Growers' Association attempted to improve production by eliminating the unproductive and unresponsive growers.⁹⁴

TABLE 11

BANANA EXPORTS AS A PERCENTAGE OF TOTAL
EXPORTS, ST. VINCENT, 1950-1960

Year	Per Cent of Total Exports
1950	0.4
1951	(nominal)
1952	(nominal)
1953	0.3
1954	1.3
1955	5.6
1956	14.5
1957	41.5
1958	41.5
1959	48.3
1960	47.2

Source: Author's calculations from data in the annual Blue Book reports and The Annual Trade Report for the Year 1967.

The attention focused on the banana industry in the late 1950s was indicative of the need to supplement the income and to provide more employment opportunities for the Vincentian work force. The rapid succession of economic reverses which developed after 1958 in St. Vincent placed the burden of supporting the export economy on the banana industry, in much the same way as the sugar, arrowroot, and cotton industries had done in their more prosperous days.⁹⁵

The Minor Agricultural Industries of St. Vincent

Among the many crops which can be raised in St. Vincent, only 4—sugar cane, Sea Island cotton, arrowroot, and bananas—have ever figured prominently in the export economy. Many other

crops have been produced for export, but they have never challenged the primary importance of the 4 chief exports. Examples of minor cash crops which, in the past, were given considerable attention by the Agricultural Department are cocoa (cacao) and copra (sun-dried or kiln-dried coconut "meat"). Cocoa bean production has always been a small farmer enterprise, while copra has been supplied primarily by the estate system.

The Cocoa Industry

Cocoa was originally a second-story tree of the tropical rain forests in the upper Amazon basin. It spread to Central America where it was used by the Mayas before the Spanish arrived in the New World.⁹⁶ The cocoa tree was subsequently domesticated and diffused throughout the Caribbean during the 16th century.⁹⁷ Owing to the time period between planting and the first substantial yields (5 to 7 years), the tree had to be cultivated by a settled agricultural community. In all likelihood, the French introduced cocoa into St. Vincent about 1700, when the first permanent settlements were started in the deep valleys along the Leeward coast.

In 1765, the first exports of cocoa beans to the United Kingdom totalled 30,600 pounds. By 1769, cocoa exports had reached 220,100 pounds, a record for more than a century to come.⁹⁸ With the gradual elimination of the small farmers, however, particularly the French lease-holders, the cocoa crop diminished to insignificance. (See Figure 8.)

It was not until the sugar industry of St. Vincent began its precipitous decline after 1880 that other minor crops

increased in economic importance. Even before the West Indian Royal Commission of 1897 submitted its recommendations concerning alternative cash crops, cocoa production had returned to the level prevailing in 1769. Because of the straitened circumstances of the economy in the 1880s, a gradual, more widespread landowning class evolved, as non-producing estates and unalienated Crown lands were sold in small parcels to laborers after they had been surveyed.⁹⁹ Many of these new parcels and a few of the older estates no longer engaged in sugar cane or arrowroot production were planted in cocoa.¹⁰⁰

Between 1893 and 1915, the annual potential production of cocoa beans was estimated to have been between 200,000 and 300,000 pounds. Unfortunately, the twin disasters of the hurricane of 1898 and the eruption of the Soufrière volcano in 1902 destroyed many trees, thus lowering production below 200,000 pounds a year from 1898 to 1907. (See Figure 33.) A considerable number of destroyed cocoa trees were on land allotments that were sold by the Land Settlement Scheme (an outgrowth of a recommendation of the West Indian Royal Commission of 1897). Cocoa was one of the chief agricultural crops required for planting on the new allotments by the conditions of sale.¹⁰¹

Before the expiration of the 16-year payment period for land allotments purchased from the Scheme, the agricultural officers in St. Vincent stressed the planting of cocoa, along with cotton, coffee, nutmeg, and cinnamon. In 1907, total production of cocoa beans for export again exceeded the 200,000 pound level and increased to a new record of 285,969 pounds. (See Figure 33.) The highest value of cocoa exports, however, was in 1915, when £6,962

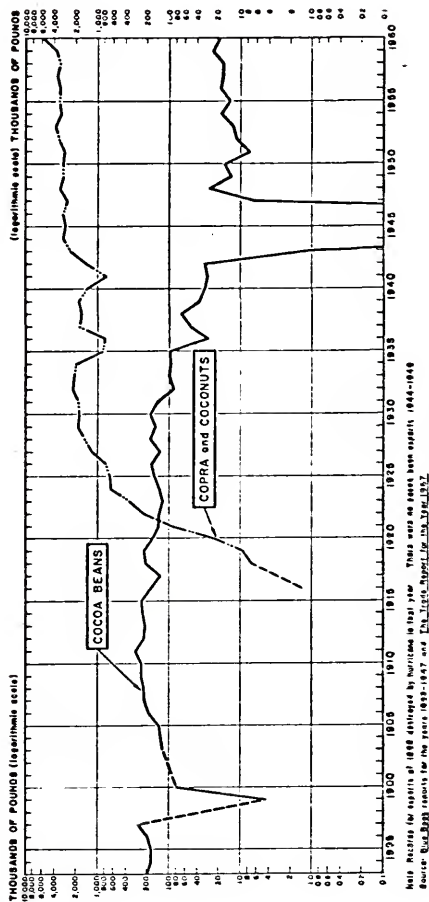


FIGURE 33

VOLUME OF EXPORTS OF COCOA BEANS AND COPRA (COCONUTS),
ST. VINCENT, 1893-1960

of beans were sold. This amounted to approximately 7 per cent of the total exports for that year. Cocoa's percentage share of total exports never exceeded this level, and, in fact, was usually less than 1 per cent each year. (See Figure 34.)

With rapid expansion of cocoa plantings in West Africa in the 20th century, the price of cocoa declined steadily until the Second World War, when a slight improvement occurred.¹⁰² St. Vincent's production in the 20th century, of course, had absolutely no influence on the world price. The quantity produced in the island was insignificant in a world context, and the quality of the cocoa bean had an extremely poor reputation in the United Kingdom before the First World War.¹⁰³

The decline of the cocoa industry in St. Vincent began in 1921, when a hurricane destroyed many trees. The world trade depression in the early 1930s caused many cocoa trees to be abandoned because of the low profitability in Vincentian production.¹⁰⁴ Between the depression year of 1930 and 1960, cocoa bean exports have never exceeded 0.5 per cent of the value of total exports, indicating the nominal position of the industry in the island economy.

The Copra Industry

Copra production in St. Vincent, although an important minor industry, has less direct effect on the employment and income situation of most Vincentian laborers than any other industry. Throughout its 20th-century history, the copra industry has been overwhelmingly an estate enterprise, with most of the annual production accounted for by the output of a single large

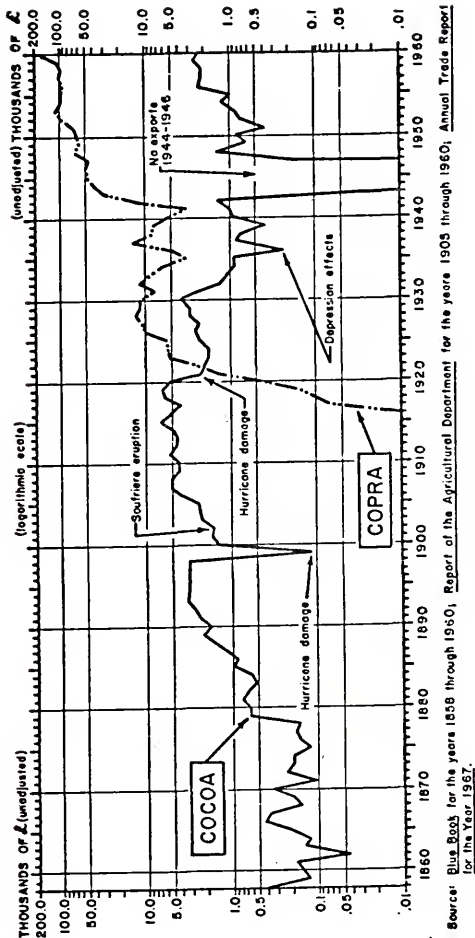


FIGURE 34

VALUE OF COCOA AND COPRA EXPORTS,
ST. VINCENT, 1858-1960

coconut plantation encompassing much of the northeast Windward coastal area. Coconut trees are found throughout the main island, often as windbreaks, but the most important and extensive stands are concentrated in a few large estates, most of them located on the Windward coast.

The earliest commercial plantings of coconut trees began in 1911, when a few small areas were planted with nuts imported from Dominica and St. Lucia.¹⁰⁵ Within 3 years, there were over 1,000 acres of new stands, totalling more than 2,000 acres throughout the entire colony. By 1922, there were 2,500 acres, with over 50 per cent of them located in the "Carib Country" of the northeast. Owing to the favorable price of copra before the trade depression of the early 1930s, plantings grew rapidly to some 5,300 acres.¹⁰⁶

Some years had to elapse before the coconut palm could yield a measurable crop. Consequently, it was not until after the First World War that the copra industry made its first important contribution to the economy. (See Figures 33 and 34.) In 1920, 22,644 pounds of copra were exported, valued at £430. Exports increased rapidly as more trees came into bearing, so that by 1932, over 2,000,000 pounds of copra were sold at a value of £11,426—and this occurred in a depression year.

Exporting dried coconut meat proved less profitable than the exporting of whole nuts, so that from 1935 onward, copra exports declined while whole nut sales increased. In that year alone, 75 per cent of exports were in the form of whole nuts. Once the Second World War broke out in Europe in 1939, a world-wide shortage of fats caused copra prices to increase. By 1944,

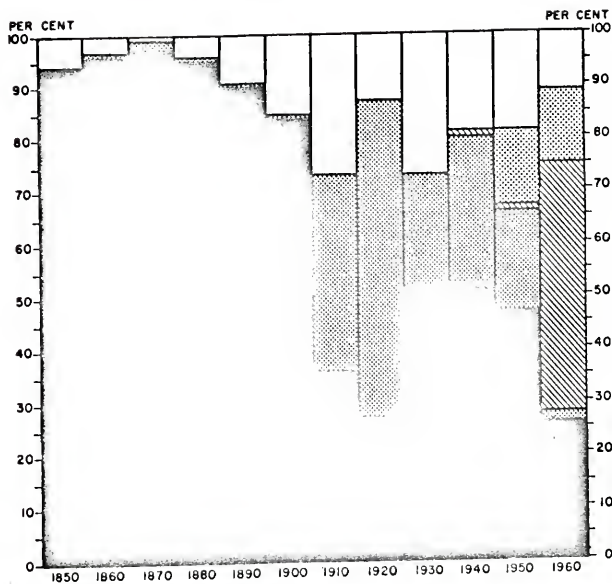
nearly all of the 10,000,000 nuts produced were used for copra.¹⁰⁷ The industry's greatest contribution to St. Vincent's economy was recorded during the war years, when approximately 20 per cent of the value of all exports were accounted for by copra sales.¹⁰⁸

Copra production remained relatively stable for over a decade following the end of the war. About 10,000,000 nuts were gathered each year from 5,000 acres, 90 per cent of the area being under estate cultivation. In 1960, copra exports accounted for 14 per cent of the value of total exports and were declining slightly as the banana industry expanded.

A Review of the Agricultural Economy

In the preceding chapters, the agricultural economy of St. Vincent has been examined from the first year of British administration, in 1763, to 1960. The 200-year analysis revealed the fluctuating demand for St. Vincent's chief exports. Each of the major exports—sugar, arrowroot starch, Sea Island cotton, and bananas—developed in a characteristic manner. With the possible exception of arrowroot, which was raised on a small scale during most of the 19th century, the other major cash crops evidenced a remarkably rapid rise to primary status. Usually, a geometric rate of increase in exports was maintained for the first 5 to 10 years after an industry was started, catapulting the particular industry to first place in the economy. Thereafter, the rate of increase slowed down and fluctuated with demand. (See Figure 35.)

Economic forces in the world markets have, in effect, governed the level of prosperity in St. Vincent. The scarcity



Source: Compiled and calculated by the author from data listed in the annual Blue Books and trade reports.

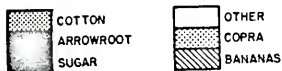


FIGURE 35
 PERCENTAGE DISTRIBUTION OF CHIEF
 EXPORTS, ST. VINCENT, DECENNIALY,
 1850-1960

of cultivable land in the small island colony, a consequence of the rugged topography of the interior of the "main" island and the dryness of the Grenadine possessions, has circumscribed St. Vincent's contributions to world trade. The inability to increase production of the chief exports rapidly when the market was favorable has plagued the economy for 200 years.

Vincentian sugar planters fared well as long as the West Indies maintained its position as the world's leading source of sugar. Even if the traditionally conservative planters had modernized their estates in the 19th century, it would have been impossible for the island's production to have had any effect on world trade in sugar. Growers remained captive producers of sugar well beyond its economic justification. It was only after the depression in the sugar industry, following the elimination of sugar duties in 1874 and the large-scale competition from beet sugar in the 1880s, that the arrowroot starch industry was revitalized.

In addition to the halting contribution of arrowroot exports in the early 20th century, there developed a budding Sea Island cotton industry to help buoy up the economy. These 2 industries superseded the sugar industry in the 20th century. Unlike sugar, arrowroot starch and extra-long-staple Sea Island cotton were identified specifically with St. Vincent in the world markets.

The limited area of production for these crops contributed to the eventual demise of both industries. The high unit prices

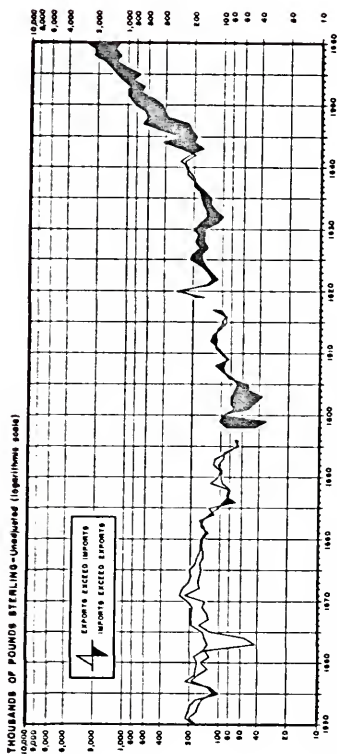
for arrowroot and Sea Island cotton, caused by the failure to increase significantly the yields of the crops, resulted in buyers switching to cheaper and more abundant substitutes.

Fortunately for the Vincentian laborers, favorable economic conditions for a banana industry existed in the mid-1950s. The new industry served to bolster the lagging economy at a time when the arrowroot and Sea Island industries began declining.

In retrospect, it is obvious that St. Vincent and the other small West Indian islands have had to follow in the economic wake of the major producers of the world. The struggle to provide improved levels of living by means of increasing exports of favorably priced commodities depends upon so many extraneous factors over which the island has little control. In all likelihood, the Vincentian economy will always be confronted with serious disruptions in its development, if cash crops remain the primary means of production. Flexibility in decision-making and action-taking remains the key to economic and social stability.

The Balance of Trade

The consequences of fluctuations in the external trade sector of the Vincentian economy are best revealed by analyzing the balance of trade in a time series.¹⁰⁹ (See Figure 36.) Before 1879, the muscovado sugar industry provided enough exports to maintain a favorable balance of trade, with only a few years of adverse trade balances. The positive balance of trade between 1861 and 1878 resulted from several factors: (1) the



NOTE: TRADE STATISTICS MISSING FOR 1857 AND 1859

Source: Compiled from *Brit. Bull.* reports for the years 1850 through 1858 and *The Trade Report for the Year 1962*

FIGURE 36
VALUE OF EXPORTS, IMPORTS, AND BALANCE
OF TRADE, ST. VINCENT, 1850-1960

revitalization of abandoned and indebted sugar estates through the operation of the West Indian Encumbered Estates Court; (2) the periodic arrival of indentured East Indian "coolie" workers for the sugar estates; and (3) the disruption of trade with the United States during the American Civil War, resulting in a shortage of imports.

With the beet sugar competition in the last quarter of the 19th century came a reduction in the level of exports and, consequently, imports. For most of the time after 1880, the balance of trade was positive but showed a definite diminishing trend. With the hurricane in 1898 came the first large-scale deficit in the trade balance, as most growing crops were destroyed that year. (See Figure 36.) The volcanic eruption in 1902 further reduced the level of exports in the first few years of the 20th century.

The establishment and growth of the Sea Island cotton industry brought a slim measure of recovery until after the cotton boom in 1920. From 1921 to 1960, the annual Vincentian trade sector showed a relatively large negative balance. The only years with a favorable trade balance were those shortly before and after the beginning of the Second World War. The monetary level of exports and imports rose after the war, as prices of most of the world's manufactured goods increased in response to higher standards of living and higher costs of production, especially in the industrially advanced nations. (See Figure 36.) Like most primary producing countries, St. Vincent has had to face

an increase in the cost of imports greater than the price of exports, that is, the terms-of-trade have been deteriorating.¹¹⁰

Summary

This chapter has examined the major and minor cash crops in the Vincentian economy, particularly in the 20th century. The development of the arrowroot, Sea Island cotton, and banana industries has been analyzed in order to show how they fluctuated in response to outside economic forces. Two minor industries—cocoa and copra—were briefly discussed and shown to exhibit the same rapid early growth stages as the major industries. The concluding section, devoted to a review of St. Vincent's balance of trade from 1849 to 1960, showed that, in general, St. Vincent enjoyed a favorable balance of trade during the 19th century and an unfavorable balance during the 20th.

NOTES TO CHAPTER V

¹The Colony of St. Vincent, Blue Book, 1855, p. 196.
[Hereafter this reference will be cited as simply Blue Book, with the appropriate year given.] The variety of arrowroot rhizome grown in St. Vincent is Maranta arundinacea L.

²Blue Book, 1856, p. 235.

³Estates Book, p. 241. The author has averaged the annual totals given in a table entitled: "An Account showing the total number of Slaves annually employed, and quantity of Produce raised in the Island of St. Vincent and its Dependencies, from 1819 to 1824, both inclusive," [with annual additions entered through 1851.] The first listing of arrowroot production in this reference was in 1830.

⁴Ibid. The absolute quantity of starch produced ranged from 147,000 pounds in 1843 to 491,000 pounds in 1851.

⁵William G. Sewell, The Ordeal of Free Labor in the British West Indies (2d ed.; London: Sampson Low, Son & Co., 1862), pp. 80-81. Also: Blue Book, 1855, p. 196. A footnote to the "Return of Produce" in the Blue Book states: "Arrowroot is cultivated by the Peasantry extensively from whom no returns can be made."

⁶W. K. Marshall, "Social and Economic Problems in the Windward Islands, 1838-65," in The Caribbean in Transition, ed. by F. M. Andic and T. C. Mathews (Rio Piedras, P. R.: University of Puerto Rico for the Institute of Caribbean Studies, 1965), p. 238.

⁷Bermuda arrowroot starch was preferred over the Vincentian product and received 2 to 3 times the price per pound, a situation under consideration by the exporters in St. Vincent as early as 1891. See: The St. Vincent Government Gazette, 1891, p. 11. [Hereafter this reference will be cited simply as Government Gazette, with the appropriate year given.]

8

See the Blue Book agricultural returns for the years 1892 and 1896.

⁹The quality "grade" of arrowroot starch is largely dependent upon the whiteness of the finished starch. The high quality starches have usually been produced on the large estates with such advantages as clean water and efficient manufacturing processes. See: G. Wright, "St. Vincent Arrowroot," Tropical Agriculture, V, No. 7 (July, 1928), p. 165. For a detailed description of the grading of arrowroot starch, see: W. D. Raymond and J. Squires, "Sources of Starch in Colonial Territories, II: Arrowroot (Maranta arundinacea Linn)," Tropical Science, I (1959), pp. 186-187.

10

In general, the situation of the arrowroot industry before 1910 was considered unsatisfactory, although it was better than the nearly defunct sugar industry. See: Raymond and Squires, "Sources of Starch," p. 162.

11

Imperial Department of Agriculture for the West Indies, Reports on the Botanic Station, Agricultural School, and Land Settlement Scheme, St. Vincent, 1906-07 (Bridgetown, Barbados: Imperial Commissioner of Agriculture for the West Indies, 1907), p. 6. [Hereafter this series of reports will be referred to as Reports on the Botanic Station, with the appropriate year given.]

12

Reports on the Botanic Station, 1908-09, p. 12.

13

Ibid.

14

Reports on the Botanic Station, 1912-13, p. 20.

15

The three primary objectives of this body were:

1. To acquire and market all St. Vincent arrowroot starch intended for export.
2. To grade, pack, and warehouse arrowroot and make advance payments on all starch delivered to the Association's warehouses.
3. To market, by means of voluntary control, the crop more economically than could be done by existing systems and, thus, reduce the cost to the consumer.

See: Imperial Department of Agriculture for the West Indies, Report on the Agricultural Department, St. Vincent, for the Year 1931 (Port-of-Spain, Trinidad: Imperial Commissioner of

Agriculture for the West Indies, 1932), p. 22. [Hereafter this series will be cited simply as the Report on the Agricultural Department, with the appropriate year given.]

¹⁶ The Association was expected to devote time and resources to research into the production and uses of arrowroot starch, but this duty was never accomplished to the extent it was for sugar cane and Sea Island cotton. Additionally, the Association depended upon only a few customers, the largest one located in the United States. See: Christian I. Martin, "The Role of Government in the Agricultural Development of St. Vincent" (Master's thesis, Faculty of Agriculture, University of the West Indies, St. Augustine, Trinidad and Tobago, 1967), pp. 82-83.

¹⁷ Report on the Agricultural Department, 1939, p. 1.

¹⁸ Report on the Agricultural Department, 1944, p. 2.

¹⁹ Ibid., p. 1.

²⁰ Report on the Agricultural Department, 1946, p. 3.

²¹ A post-script to this study reveals the critical proportions reached in the arrowroot industry in the early 1960s. In 1964, the largest American buyer curtailed purchases of arrowroot from St. Vincent. Substitute products—potato and corn starch—more readily available in the United States were used. It has been said that three factors must be considered in selecting starch: (1) price, (2) availability, and (3) stability and dependability of supply. See: Martin, "Government in the Agricultural Development of St. Vincent," p. 82.

The St. Vincent arrowroot industry failed in all three ways to satisfy its customers. The unfortunate circumstances that led to reliance on one large buyer proved disastrous when that buyer withdrew his orders. Alternative markets were missing, causing the Arrowroot Growers's Association to continue buying and stockpiling unsold quantities of the starch. In this instance, the monopoly in arrowroot production forced the Vincentian economy to suffer from an equally strong reverse leverage. Considerable unemployment and distress, partly a result of the depression in the arrowroot industry, has plagued the island throughout the 1960s.

²² Gossypium hirsutum, variety marie-galante cotton was the most common species of indigenous, perennial cotton found in the drier Lesser Antilles. It was the most favored commercial

variety of the 18th and 19th centuries in the French and, later, the British West Indies. It was the forerunner of American "Upland" cotton planted throughout the American South in the 19th century. Gossypium barbadense was the ancestor of the famous Sea Island cotton, also indigenous to the Lesser Antilles. See: J. B. Hutchinson and S. G. Stephens, "Note on the 'French' or 'Small-Seeded' Cotton Grown in the West Indies in the 18th Century," Tropical Agriculture, XXI, No. 7 (July, 1944), p. 123; also see: Walter H. Evans, "The Origin and Distribution of Sea Island Cotton," West Indian Bulletin, IV, No. 1 (1904), pp. 199-200.

²³ Lowell Joseph Ragatz, The Fall of the Planter Class in the British Caribbean, 1763-1833 (New York: D. Appleton-Century, 1928), p. 114.

²⁴ Ibid. In 1765, Grenada reported exporting 368,032 pounds of cotton, but most of this was the product of Carriacou, its largest possession in the Grenadines. The southern dependencies of St. Vincent-Union, Mayreau, and Canouan Islands—may well have shipped their cotton through dealers in Grenada.

²⁵ Ibid. Grenada's exports had increased to 1,026,296 pounds, which included mostly Carriacou's output and possibly that of the southern Grenadines of St. Vincent.

²⁶ Thomas Ellison, The Cotton Trade of Great Britain, Cass Library of Industrial Classics, No. 11 (London: Frank Cass and Company, Ltd., 1968; 1st ed. was in 1886), pp. 17-21. Hargreaves patented his "spinning jenny" in 1770; Arkwright patented his "water-frame" in 1769 and his carding machine in 1775. These are the more notable early inventions which opened the English market for a great influx of raw cotton.

²⁷ S. G. Stephens, "Cotton Growing in the West Indies During the 18th and 19th Centuries," Tropical Agriculture, XXI, No. 2 (February, 1944), p. 25. There are no available statistics to indicate what the cotton exports of St. Vincent were between 1780 and 1786 or between 1788 and 1811. Thus, it is assumed that 1787 was the highwater mark for the volume of cotton exported from the colony.

²⁸ An exception to the change-over to sugar production in the early years after the Seven Years' War occurred in Tobago in 1776 when a plague of ants devastated the sugar crop but left the cotton unharmed. As a result, cotton temporarily replaced

sugar as the staple crop. See: David L. Niddrie, Land Use and Population in Tobago, The World Land Use Survey, Monograph 3: Tobago (Bude, England: Geographical Publications Limited, 1961), p. 17.

29

Michael M. Edwards, The Growth of the British Cotton Trade, 1780-1815 (New York: Augustus M. Kelly, 1967), p. 90. In 1794, a new "ridge" system of planting seeds more thickly was introduced. Yields in Sea Island cotton (the principal type grown up to 1794) went from 100 pounds per acre to 340 pounds per acre, a marked advantage over the production on the exhausted soils of the Lesser Antilles.

30

M. B. Hammond, The Cotton Industry: An Essay in American Economic History, Part I: The Cotton Culture and the Cotton Trade (New York: The Macmillan Company for the American Economic Association, 1897), pp. 235-237.

31

Edwards, Growth of the British Cotton Trade, p. 79.

32

Figure 23 shows the United States surpassing the British West Indies in cotton exported to Great Britain in 1799. According to Ellison, Cotton Trade of Great Britain, Appendix, Table No. 3, this did not occur until 1802. Most other authorities agree with Ellison.

33

In the Estates Book, many of the cotton plantations were recorded as having been abandoned, particularly in the smaller Grenadine islands, a few years before Apprenticeship of the slaves began.

34

At the same time, sugar prices ranged from 26d to 33d per pound. The sugar industry was also in economic difficulties, but sugar cultivation still remained more remunerative.

35

W. N. Sands, "Results of Experiments in the Cultivation of Cotton in the West Indies: St. Vincent," West Indian Bulletin, VI (1906), p. 115.

36

L. C. A. Knowles, The Economic Development of the British Overseas Empire, Studies in Economics and Political Science, London School of Economics and Political Science, Monograph No. 76 (3 vols.; New York: Albert & Charles Boni, 1925), I, p. 131. The Lancashire "cotton famines" pushed the rapid development of the inland railway system in India as the government sought to connect the cotton areas of Central India with the seaports.

37 Ellison, Cotton Trade of Great Britain, p. 86.

38 Blue Book, 1862, p. 248.

39 See the Blue Book for the years 1870, 1872, and 1876. These prosperous years for the British cotton trade resulted partly from the effects of business interruptions in Europe during the Franco-Prussian War (1870 to 1871), when an abnormal demand developed for English cotton textiles. See: Ellison, Cotton Trade of Great Britain, pp. 106-107.

40 Ibid., p. 108.

41 Knowles, Economic Development of the British Overseas Empire, I, p. 132.

42 As early as 1873, the Government of St. Vincent issued notice of the problem of emigrating labor. Workers were moving as far north as Puerto Rico and as far south as Trinidad and British Guiana [now Guyana]. With the French attempt to build a canal across Panama (1878 to 1889) came an outflow of Vincentians to that country. As work came to a halt on the French canal, Vincentians began migrating to Costa Rica nearby to assist in railroad construction for the infant banana industry. After the turn of the century, another stream of migrants moved back to Panama as the United States began its canal construction.

43 D. Morris, "Cotton Growing in the West Indies," West Indian Bulletin, IV, No. 1 (1904), pp. 29-31. For a brief description of the origin and early spread of Sea Island cotton, see: Evans, "Origin and Distribution of Sea Island Cotton," pp. 199-201.

44 The cotton season extends over two years, as the crop is planted in one and harvested early the following year, thus, the hyphenated season designation.

45 Reports on the Botanic Station, 1903-04, p. 10. This report states that there were 400 acres planted, while the following year's report states that only 300 acres had been planted. It was also in 1903-04 that a large 3-story cotton factory was built on the outskirts of Kingstown (on Richmond Hill Estate) and was said to be the most modern of its kind in the British West Indies at that time. This indicates the great expectations for the success of the cotton industry.

46 The Sea Island seed was specially selected by the Imperial Department of Agriculture from supplies in James Island, South Carolina, where the finest Sea Island cotton was grown. See: Sands, "Experiments in the Cultivation of Cotton," p. 116. In addition to the seed, expert growers from South Carolina were hired to demonstrate to the growers in St. Vincent how to produce and prepare the long-staple cotton for market. See: William R. Meadows, "Economic Conditions in the Sea Island Cotton Industry," Bulletin of the U.S. Department of Agriculture, No. 146 (September, 1914), p. 5.

47 Although the value of cotton exports never greatly exceeded that of arrowroot before 1927 (except for the boom years in cotton in 1920), the phenomenal growth of cotton cultivation caught the imagination of the growers and the Imperial Department of Agriculture. From 1908-09 to 1932-33, the cotton industry rated first place in the annual reports of the Agricultural Department of St. Vincent.

48 For a comparison of Sea Island cotton and its nearest competitor, Egyptian Sakel (Sakellaridis), see: N. W. Barritt, "The Determination of Egyptian Cotton and Its Relation to Quality," The Empire Cotton Growing Review, VII, No. 1 (January, 1930), pp. 19-29.

49 When acreage was expanded in the years of early cotton cultivation, great amounts of poor or indifferent land were included. In years of reduced plantings, the poorer lands were usually thrown out of cultivation, raising the average yield. See: H. A. Ballou, "St. Vincent Cotton," Tropical Agriculture, VI, No. 10 (October, 1929), p. 293.

50 In January, 1910, the St. Vincent Government initiated a "profit-sharing" plan, whereby the small growers sold their seed cotton to the Government's Central Cotton Ginnery for a stated price and received an immediate payment of 80 per cent of the sale price. Later, when the cotton was finally sold in the United Kingdom, the growers received their remaining 20 per cent plus any bonuses due them. See: Knowles, Economic Development of the British Overseas Empire, I, p. 132. The first census of small growers in 1910-11 revealed that there were 824 farmers, 66 per cent of whom raised Sea Island cotton. The average size of the small farms was 1.1 acres. See: Report on the Botanic Station, 1910-11, p. 13. In the following year, the number of small farmers growing Sea Island cotton increased to 1,570, while the average farm size remained at 1.1 acres. See: Report on the Botanic Station, 1911-12, p. 14.

51 John A. Todd, "Twenty-Five Years of Cotton Prices," The Empire Cotton Growing Review, XV, No. 4 (October, 1938), p. 279.

52 This occurred wherever small muscovado mill works still stood and could be repaired. Orange Hill Estate, on the northeast Windward coast (in the old "Carib Country"), made the most extensive return to sugar during the brief war years. See: Report on the Agricultural Department, 1916-17, p. 22.

53 In 1920-21, there were 2,965 small cotton growers, each averaging 0.9 acres per grower. Fifty-two estates cultivated 3,373 acres. See: Report on the Agricultural Department, 1920, p. 14.

54 The total quantity of cotton lint exported in the 1920-21 season was 502,308 pounds, an amount unsurpassed until 1937-38. The yield was only 95 pounds per acre, down from the initial cotton yields in St. Vincent of 174 pounds. This indicates the consequences of rapid expansion in acreage using marginal land and poor methods of cultivation. See: Report on the Agricultural Department, 1920, p. 14.

55 For a description of the early American Sea Island cotton industry, see: Meadows, "Economic Conditions in the Sea Island Cotton Industry," pp. 1-18; and Works Progress Administration, comp., The Story of Sea Island Cotton, State of Florida, Department of Florida, Department of Agriculture, Bulletin No. 113 (1941), pp. 1-59.

56 John A. Todd, "Sea Island Cotton," Tropical Agriculture, VII, No. 7 (July, 1930), p. 190.

57 "Value," in the 1920s and 1930s, was secondary to price in selecting the cotton for the "fine spinners" of England. For St. Vincent and other British West Indian islands to maintain their position in the fine lace trade, they had to keep their prices not much more expensive than the finest Egyptian cotton. See: Todd, "Sea Island Cotton," pp. 190-191; also John A. Todd, "Classification of the World's Cotton Crops," The Empire Cotton Growing Review, IX, No. 1 (January, 1932), pp. 46 and 52.

58 Todd, "Sea Island Cotton," pp. 190-191.

59 For a discussion of the growing importance of rayon in the English textile industry, see: A. J. Turner, "Cotton and Rayon," The Empire Cotton Growing Review, XII, No. 3 (July, 1935), pp. 199-207.

60

Since the end of the First World War, the tendency had been for the small cultivators, who had received plots of approximately 5 acres under the Land Settlement Scheme of 1898 (a recommendation of the West Indian Royal Commission of 1897), to turn more of their relatively poor land over to cotton cultivation. The initial supervision of the many small holders in the valleys of the north Leeward coast had centered around cash crops such as cocoa, coffee, nutmeg, and cinnamon. As long as the landholdings were not paid off, the Government had the right to enforce its regulations concerning the use of the land. However, when the plots were paid off, about the time of the First World War, the farmers began the monoculture of cotton, which led to serious erosion on the steep slopes of the Leeward valley holdings and reduced yields. The switch to cotton monoculture was inevitable at that time, owing to the lack of processing facilities for arrowroot and sugar manufacture. See: Report on the Agricultural Department, 1938, p. 37; also see: J. P. Watson, J. Spector, and T. A. Jones, Soil and Land-Use Surveys, No. 3: St. Vincent (Port-of-Spain, Trinidad: The Regional Research Centre of the Imperial College of Tropical Agriculture, 1958), p. 10.

61

The "closed season" was lengthened in 1929, that is, planting was delayed from June until September. It was thought that by planting cotton late in the year, the damage to the developing bolls from the heavier mid-year rains (particularly among the north Leeward coast) and insects could be reduced. See: Report on the Agricultural Department, 1929, p. 12.

62

Report on the Agricultural Department, 1931, p. 14.

63

For a discussion of the West Indian Sea Island Cotton Association, see: C. C. Skeete, "The West Indian Sea Island Cotton Association: Its Formation and Work," The Empire Cotton Growing Review, XIII, No. 3 (July, 1936), pp. 178-185. The Association was a direct outgrowth of regional British West Indian discussions in 1932 into the difficulties of reducing unsold cotton stocks in England. It was generally acknowledged at the time that the Sea Island problem was one of "under-consumption" not "over-production." Cotton spinners were interested in price, not value. St. Vincent's cotton was the world's finest, yet it had difficulty in selling in England. It became necessary, therefore, to reduce stocks in the United Kingdom and at the same time prevent another build-up. The Association recommended acreage restrictions, but it possessed no authority to enforce its recommendations. In the late 1930s, however, most of the Sea Island-growing islands (St. Vincent, St. Kitts, Nevis, Anguilla, Antigua, Barbados, and St. Lucia) obeyed the Association's requests to limit production. The only exception was Montserrat which felt it had to exceed its quota, owing to the primacy of the cotton industry in its economy.

64

Sea Island cotton in Great Britain during the rearmament was used in the manufacture of barrage balloon fabric and, thus, sold very easily from 1936 to 1939. See: West India Committee, "West Indian Cotton Industry, 1938-39," The Empire Cotton Growing Review, XVII, No. 1 (January, 1940), p. 17.

65

During the Second World War, 93.5 per cent of St. Vincent's Sea Island crop was purchased by the Ministry of Supply at a guaranteed price of 25d per pound. The more inferior variety of Sea Island, the Montserrat strain (M. S. I.), received 22 1/2 d per pound. See: West Indian Sea Island Cotton Association, "Sea Island Cotton Industry," Tropical Agriculture, XVIII, No. 5 (May, 1941), p. 85. By 1939, St. Vincent had perfected its strain of "superfine" Sea Island cotton, called V.135, and always received a premium price for it. No other cotton-growing island in the West Indies grew this variety, owing to its selected adaptation to St. Vincent's climate and soils. Barbados grew a similar variety (B. S. I.), but its production was nominal during the war. See: J. B. Hutchinson, "Agricultural Problems of the West Indian Cotton Industry," Tropical Agriculture, XXI, No. 7 (July, 1944), p. 121.

66

United States military bases in Antigua, St. Lucia, and Trinidad created a strong demand for additional food crops, and owing to the emigration of many agricultural workers to these construction sites, food supplies throughout the British West Indies became dearer. Arrowroot and cotton land was, therefore, thrown over to ground provisions. See: Report on the Agricultural Department, 1942, p. 2.

67

Beginning in 1942, many young Vincentians emigrated to the high-wage construction and industrial sites in the southern Caribbean area. Vincentians from the Grenadines continued their perennial migrations to Trinidad, while workers from the "main" island went to Aruba and Curaçao in the Netherlands Antilles to work for the petroleum refineries. See: Report on the Agricultural Department, 1943, p. 2. Their absence put a strain on cultivation in St. Vincent, for cotton cultivation, in particular, requires an abundance of cheap hand labor for weeding and thinning after the crop has been planted. Harvesting, too, demands a steady supply of pickers. Unlike most other types of cotton, Sea Island cotton bolls ripen at different times and, therefore, the fields must be picked over several times. See: Cathy Sparling, "West Indian Sea Island Cotton," Caribbean Farming, II, No. 3 (July-September, 1970), p. 16.

68

Small growers accounted for approximately 63 per cent of the cotton crop in the 1945-46 season. This was the reverse of conditions during the First World War. In much the same way as arrowroot had become less attractive during the Second World War to estate growers, cotton cultivation among the planters dwindled. This is evident from the cotton yields of both classes of growers. In the 1942-43 season, for example, the average yield of cotton lint from estate cultivations in St. Vincent was 142 pounds per acre, while from the small growers (farms less than 20 acres in size), the yield was only 62 pounds per acre. This demonstrates that the competition from artificial fibers and Egyptian cotton could only be profitably met by increasing the per-acre yield. High prices alone could not safeguard the Sea Island industry. See: Hutchinaon, "Problems of the West Indian Cotton Industry," p. 122.

69

Until 1946, the Ministry of Supply's Cotton Control was obligated to purchase 93.5 per cent of St. Vincent's crop at a price which remained fairly fixed during the war. Most Vincentian growers considered this price to be too low in view of the high cost of labor. See: J. V. Lochrie, "The Empire Cotton Growing Corporation in the British West Indies," The Empire Cotton Growing Review, XXXI, No. 1 (January, 1954), p. 28. From 1948 to 1952, all cotton sold in the United Kingdom had to be sold to the new Raw Cotton Commission in Britain. The Commission graded the cotton it purchased and paid according to quality. St. Vincent's V.135 "superfine" variety of Sea Island cotton received the highest quotation. Even with the other West Indian cotton producers, however, St. Vincent's trade was insignificant in the world picture. Sea Island prices moved sympathetically with the prices of competing long staple cotton supplied in large volume from Egypt and the Sudan. During the Korean War, therefore, the stockpiling of Egyptian cotton in the United Kingdom caused the prices of all high quality cotton to increase. See: George C. Abbott, "The Collapse of the Sea Island Cotton Industry in the West Indies," Social and Economic Studies, XIII, No. 1 (March, 1964), pp. 180-183.

70

Ibid., p. 185.

71

Ibid.

72

Owing to the high percentage of cotton acreage under small-grower control (83 per cent by 1954-55), the switch to bananas had a marked effect on the cotton industry, as land in cotton was thrown over to bananas. See: Report on the Agricultural Department, 1955, p. 3.

73 Using 1954 prices, it has been shown that one acre of land under various crops yields a gross income as follows: (1) bananas, £92; (2) arrowroot, £63; (3) sugar cane, £54; (4) cotton, £40; and (5) coconuts (copra), £40. When net profit is considered, however, the order of profitability is as follows (excluding bananas): (1) cotton, £20; (2) coconuts, £20; (3) arrowroot, £15; and (4) sugar cane £10. See: Abbott, "Collapse of the Sea Island Cotton Industry," Table 14, p. 180; also: Martin, "Government in the Agricultural Development of St. Vincent," pp. 58-59. The order of importance must be according to the gross income per acre, rather than profit per acre, because most of the small growers do not price their labor or that of the members of their family. They are concerned with the largest lump cash payment at the time of sale. See: Abbott, "Collapse of the Sea Island Cotton Industry," p. 170.

74 As late as 1970, the same problems facing the Sea Island cotton industry before 1960 were still being discussed. The existing problems today are: (1) competition from Egyptian and Sudanese cotton; (2) competition from synthetic fibers, especially wash-and-wear fabrics; (3) the unfavorably low prices which have persisted since the 1950s; and (4) the lack of labor for hand-picking of the Sea Island cotton bolls. See: Sparling, "West Indian Sea Island Cotton," p. 16.

75 In June, 1898, W. C. Cradwick, the Superintendent of the Hope Gardens in Jamaica, visited St. Vincent as a consequence of the West Indian Royal Commission of 1897. One of the major recommendations of the Commission was the immediate enactment of a "land settlement scheme" to supply freehold land plots to the unemployed and underemployed Vincentians. Cradwick was responsible for visiting all of the estates in the island and evaluating them for possible Government acquisition into the settlement scheme. In his evaluation of the economic potential of the estates, Cradwick stated that several large ones on the Leeward coast (Queensbury, Retreat, Penniston's, Hope, Pembroke, and Cane Grove) should not be purchased for the small cultivators to use as banana lands, owing to the inability of "primitive" farmers to manure and cultivate properly this crop. Estates along the less rugged southeast Windward coast (Argyle, Calder, Carapan, and Rivulet) were said to be too windy for bananas, while those on the more exposed south coast (Villa, Rathomill, Prospect, and Belvidere) were too dry. The only favorable banana lands he saw were those estates located in the flat, inland valleys along the south coast (Belair, Cane Hall, Fountain, and Arnos Vale). See: "Report by Mr. Cradwick on a Visit to St. Vincent," proof of a report concerning the economic potential of St. Vincent's estates, June, 1898. Located in the folder archives of the Office of the Clerk of the Legislative Council, Kingstown, St. Vincent, W.I.

76 In 1903, an experimental shipment of 5 crates of bananas was sent to the United Kingdom. The venture was unsuccessful because of the unavoidably excessive handling that preceded packing in the island and, especially, the long distance involved in transporting the fruit to the home market. See: Reports on the Botanic Station, 1903-04, p. 9.

77 The Canadian Ottawa Trade Agreements of 1932 were reciprocity agreements signed with the British Caribbean colonies to stimulate trade between the signatories. See: Sir Alan Burns, History of the British West Indies (rev. 2d ed.; London: George Allen & Unwin, Ltd., 1965), p. 709. In 1933, the Canadian National steamships replaced the Leyland line which served Dominica and St. Lucia and Elders and Fyffes, serving Trinidad. The Canadian service made fortnightly stops at Trinidad, Grenada, St. Vincent, New Brunswick and Halifax, Nova Scotia. See: E. R. Leonard, "The Banana Trade from the West Indies to Canada," Tropical Agriculture, XVIII, No. 12 (December, 1941), p. 244.

78 The reports from the Agricultural Department and the annual Blue Book reports give no indication whether or not the 1932 and 1933 exports were carried from St. Vincent or, perhaps, trans-shipped to St. Lucia for final export.

79 Report on the Agricultural Department, 1934, pp. 29-30.

80 Nearly all of the commercial bananas grown in the Caribbean at that time were of the type *Musa sapientum* L. (Gros Michel). See: D. E. Kay and E. H. G. Smith, "A Review of the Market and World Trade in Bananas," Tropical Science, II (1960), p. 154. An alternative scientific classification of this type of banana is as follows: *Musa* (AAA Group) 'Gros Michel.' See: N. W. Simmonds, *Bananas* (2d ed.; London: Longmans, Green and Company, Ltd., 1966), p. 52. Experts agree that Simmonds's nomenclature is botanically more accurate. See: C. W. Wardlaw, Banana Diseases (New York: John Wiley & Sons, Inc., 1961), pp. 1-2. For a discussion of the cultivation of 'Gros Michel' bananas in the West Indies in the 1930s, see: Wilson Popenoe, "Banana Culture Around the Caribbean," Tropical Agriculture, XVIII, No. 1 (January, 1941), pp. 8-12. This article was originally written in Spanish and published in 1936.

81 Panama disease or banana wilt (*Fusarium oxysporum*) f. cubense is one of the major drawbacks to the 'Gros Michel' banana. See: Simmonds, Bananas, pp. 366-378; Wardlaw, Banana Diseases, p. 194.

82 Banana cultivation and the export trade in the fruit, difficult as it was in the 1930s, was not impossible. The most noteworthy statement about bananas to come out of the St. Vincent Agricultural Department in the 1930s, in light of what happened in the late 1950s, was as follows:

"It is now quite clear that banana growing will not be a major industry in St. Vincent and further that conditions are such that it can only be successful in small, well-sheltered 'pockets' of land in humid valleys."

See: Report on the Agricultural Department, 1938, p. 13.

83 N. W. Simmonds, "The Growth of Post-war West Indian Banana Trades," Tropical Agriculture, XXXVII, No. 2 (April, 1960), p. 79.

84 In 1953, bananas from St. Vincent were shipped by Messers. Antilles Products via St. Lucia. There is no indication whether this was a renewal of the Canadian Trade or whether it was a new channel of trade with the United Kingdom. In addition, there is no way of ascertaining where the banana exports from 1947 through 1952 went. It must be presumed that these exports also went into the world market after transshipment to St. Lucia.
See: Report on the Agricultural Department, 1953, p. 12.

85 The clonal designation of the 'Lacatan' banana raised in St. Vincent before 1954 is Musa (AAA Group, Cavendish Subgroup) 'Pisang masak hijau.' The name 'Lacatan, used initially in Jamaica, is actually a misnomer and should only be used to refer to the true 'Lacatan' of the Philippine Islands. See: Simmonds, Bananas, pp. 52 and 82.

86 George Beckford, The West Indian Banana Industry, Studies in Regional Economic Integration, II, No. 3 (Mona, Jamaica: Institute of Social and Economic Research of the University of the West Indies, 1967), p. 11.

87 Melba Kershaw, "The Banana Industry in the Windward Islands," Tropical Science, VIII (1966), p. 119. The individual growers must register with the St. Vincent Banana Growers Association in order to sell their output and must pay a small cess for each pound of bananas sold. The Association will collect the fruit at its buying stations, pack it, transport it to the loading shed in Kingstown, and sell it to Geest. In addition, the growers's fields are sprayed against disease, fertilizer is offered at reasonable prices, and advice is extended to the growers.

⁸⁸One designation of this variety is: Robusta (Musa cavendishii L.). See: Kay and Smith, "Review of the Market," p. 154. Simmonds uses a more specific classification: Musa (AAA Group, Cavendish Subgroup) 'Robusta.' See: Simmonds, Bananas, pp. 52 and 82.

⁸⁹The antecedent variety in St. Vincent—'Gros Michel'—was especially susceptible to Panama disease, whereas, the 'Robusta' variety of Cavendish banana was more resistant to the banana wilt but suffered more from Leaf Spot (sigatoka) disease and bruised more easily. 'Gros Michel' was more easily transported, that is, it "travelled" well. See: Kay and Smith, "Review of the Market," p. 154.

⁹⁰For a comparison of the relative profitability of different types of cultivation in St. Vincent, see n. 73.

⁹¹Simmonds, in his analysis of the growth of the different banana trades in the Windward Islands, states: "St. Vincent shows a reasonably close approximation to geometric increase in the early years" [1954 through 1958]. See: Simmonds, "Growth of the Post-war West Indian Banana Trades," p. 81.

⁹²Dennis McFarlane, "The Future of the West Indian Banana Industry," Social and Economic Studies, XIII, No. 1 (March, 1964), p. 55. Part of these statistics are estimates for 1958.

⁹³West Indian Census of Agriculture, 1961: Report on the Eastern Caribbean, Including the Territories of Antigua, Barbados, Dominica, Grenada, St. Kitts-Nevis-Anguilla, St. Lucia, St. Vincent, and the British Virgin Islands (Bridgetown, Barbados: British Development Division in the Caribbean, 1968), Tables 5 and 6, pp. 215-216.

⁹⁴Report on the Agricultural Department, 1960, p. 3.

⁹⁵The reverses suffered by the Vincentian economy were: (1) the destruction by fire in 1959 of the Central Cotton Ginney and the subsequent collapse of the Sea Island cotton industry; (2) a labor strike at the only functioning sugar mill (Mount Bentinck), its subsequent closing in 1962 and the ruin of the small sugar cane industry; (3) the loss of one of the major buyers of arrowroot starch in the early 1960s; and (4) the emigration of many laborers to Trinidad during the brief existence of the West Indian Federation (1958 to 1962).

96 The cocoa referred to is of the genus Theobroma cacao L. There is no indication in the literature of the type of T. cacao L. raised in St. Vincent. It seems likely that the more recent cocoa (from the 1890s) was the "Trinitario" variety from Trinidad.

97 D. H. Urquhart, Cocoa (2d ed.; London: Longmans, Green and Company, Ltd., 1961), p. 1

98 Ragatz, Fall of the Planter Class, p. 119

99 Blue Book, 1887, p. X-1. In 1887, an ordinance was enacted that provided for the definition of boundaries between Crown lands and private holdings by surveys. This was in anticipation of the sale of unused land in the colony.

100 Blue Book, 1888, p. X-1. Between 1887 and 1896, there were 494 parcels of land totalling 2, 744 acres either sold outright or secured by annual installment payments. The average size of the parcels was 5.9 acres, however, several of the purchases were over 100 acres in size, thus, the landholdings for the small farmers were considerably less than 5 acres each.

101 "The Cacao Industry in the West Indies," West Indian Bulletin, V (1905), pp. 176-177.

102 Organization for European Economic Co-operation, The Main Products of the Overseas Territories: Cocoa (Paris: The Organization for European Economic Co-operation, 1956), pp. 15 and 17.

103 The low quality cocoa bean was the result of lack of uniformity of processing. See: Reports on the Botanic Station, 1908-09, p. 13.

104 St. Vincent's soil, unlike Grenada's, is very light and offers easy passage of water. This leads to an atmospheric humidity much less than the rainfall figures would indicate. The relatively short dry season (January to March) causes the roots of the cocoa tree to suffer from lack of sufficient moisture, a condition intensified by the constant trade winds. See: Report on the Agricultural Department, 1915-16, pp. 25-26.

105 Report on the Agricultural Department, 1911-12, p. 14.

106 Report on the Agricultural Department, 1935, p. 8. Most of the pure coconut stands were located in the "Carib Country" along the lower slopes of the Soufrière volcano.

107 Report on the Agricultural Department, 1944, p. 6. Three coconuts yield approximately 1 pound of copra.

108 In 1943, a record of 24 per cent of total exports was set. For the duration of the war, all copra was sold in the West Indies, most of it going to Barbados. See: Report on the Agricultural Department, 1943, p. 5.

109 The data for a comparison of imports and exports are available only after 1848. The annual Blue Book reports from 1849 to 1960 are utilized as references for the annual trade statistics. All monetary trade statistics are given as unadjusted values.

110 St. Vincent, St. Vincent, Development Plan, 1966-1970 (Kingstown: Government Printery, 1966), pp. 9-10.

PART II. THE POPULATION OF ST. VINCENT

CHAPTER VI

POPULATION CHANGE IN ST. VINCENT, 1763 TO 1960

In analyzing the historical development of St. Vincent, it is necessary to understand the demographic changes that have occurred since the island was first acquired by Great Britain. Throughout its past, the population of St. Vincent has fluctuated widely. Migration was the main determinant of population change in the 18th and 19th centuries, rather than the natural processes of population growth and decline. Between 1763 and 1960, the rate of net migration was determined, essentially, by exogenous, mainly economic, forces. As the local employment situation varied, so did the rate of migration, reflecting closely St. Vincent's fortunes in foreign commerce already outlined in Chapters III, IV, and V. Population changes which resulted from the succession of economic specializations between 1763 and 1960 are the main theme of this chapter.

An Evaluation of Historical Population Data

For the purposes of this study, the population figures utilized are those published in the general censuses, in the vital registers, and in various printed historical sources dealing with St. Vincent and the British West Indies. The reliability of the data, especially before 1946, is questionable,

but given the dearth of demographic studies concerning the smaller Caribbean societies, it is only possible to rely on what is available.

Before the Slave Registration Act of 1817, which was authorized by the British Government, the population estimates of the number of slaves, free "coloureds" [sic], free blacks, and whites were, at best, informed guesses.¹ From the time of the Treaty of Paris, in 1763, until the first organized census of St. Vincent, in 1844, contemporary historians used the population "statistics" of colonial governors, of vestry books in the parish churches, and estate poll tax registers, all of which were, at best, partial rather than comprehensive. For example, vital events (births, deaths, and marriages) unsanctioned by the clergy were not recorded. It was not until 1864, a century after St. Vincent was acquired by Great Britain that an act to provide for the total civil registration of all vital events was passed.² Even this improvement, however, has proved faulty in execution up to the present day.³

During the intermediate phase of Apprenticeship (1834 to 1838), while the slaves were becoming accustomed to their new-found freedom, there was no immediate urgency for population enumerations in the island. Following the complete emancipation of all slaves, however, a new interest was manifested in ascertaining what human resources existed for estate work, for labor shortages soon appeared. Among the earliest reactions of the local authorities was an amendment to contract work laws providing for the importation of indentured laborers from outside the Caribbean area for periods of service varying from 1 year initially up to 10 years.⁴

In response to the growing awareness of a general labor shortage throughout the British West Indies, the Secretary of State for the Colonies ordered a census to be taken on June 3, 1844.⁵ This enumeration included the first organized island census for St. Vincent. Others followed decennially from 1851 through 1931, with the exception of 1901, when the island was still experiencing the ravages and dislocations of the hurricane of 1898. The last two reliable and completed censuses were those taken in 1946 and 1960; the 1970 enumeration has yet to be published as an official document.

Although the censuses of the 20th century are more detailed, they have sometimes suffered from faulty compilation. The 20-year lapse between the census of 1891 and that of 1911, with the intervening hurricane of 1898 and the Soufrière volcanic devastation of 1902, leaves a critical period of time without an accurate estimate of population trends. As late as 1931, the accuracy of census enumeration could be questioned.⁶ It is apparent that all census information before 1946 is subject to some degree of error, nevertheless, the gross figures are used with this understanding. The censuses of 1946 and 1960 were more accurate than any before and more detailed in their content.⁷

The Periods of Population Change in St. Vincent

St. Vincent has experienced widely fluctuating rates of growth since the time when French settlers from Martinique and Guadeloupe came ashore in 1719.⁸ These early white farmers and their slaves engaged primarily in the mixed cultivation of tobacco, cotton, coffee, and indigo.⁹ The declared neutrality

of St. Vincent under the Treaty of Aix-la-Chspelle, in 1748, did not precipitate an exodus of Frenchmen, but probably stabilized their numbers until the end of the Seven Years War in 1763. In 1764, the survey, sale, and settlement of land parcels in St. Vincent was initiated for the purpose of establishing an English yeoman class in the island. As the sugar industry burgeoned into a monocultural economic activity, however, the small parcels of land were quickly agglomerated by individuals into large estates, thus initiating a rapid expansion of the population through the introduction of large numbers of African slaves.¹⁰ This marks the beginning of numerous references to St. Vincent's population, which will be discussed in chronological sequence.

The periods of population change may be conveniently divided into the following: (1) pre-censal estimates: the era of slavery and Apprenticeship; (2) the era of alien labor immigration, 1844 to 1881; (3) the era of emigration, 1881 to 1931; and (4) the era of rapid population growth, 1931 to 1960.

Pre-Censal Estimates: The Era of Slavery and Apprenticeship

This period includes all population references from the earliest in 1735 up to the first official census in 1844. Of all the population data analyzed in this study, those before 1844 are, in all likelihood, the least reliable. The state of the art of population enumeration at that time was such that little faith can be placed in the estimates as true indicators of demographic change. For example, as mentioned above, the

early registrations of vital processes did not count all births, deaths, and marriages unless they were sanctioned by the church. In effect, what the late 18th-century registers contained were counts of Christian baptisms, burials, and marriages. The vital data of unbaptized slaves could have very easily been omitted or misrepresented.

References to population size before Britain's acquisition of the colony in 1763 were based on the crudest approximations or guesses, as no systematic method existed for accounting for the change in numbers of people in the island. The earliest official attempt at systematic counting of people was the triennial registration of slaves beginning in 1817 and continuing until 1832. Even these labor enumerations varied in the published sources according to who took the count and its purpose.¹¹ Data before 1817 are presented in this study merely to provide an unbroken record of estimated population size from 1735 onward, with emphasis on the period of British occupation of St. Vincent.

The Early Population Estimates.—The earliest published reference to population size in St. Vincent was for 1735 and varied between 3,800 and 10,000, depending upon the reference.¹² The former estimate included no reference to the indigenous Carib Indians; the latter omitted the count of whites. Both are probably wrong, as Caribs existed in large numbers up to 1797 when 5,000 were deported to the Bay of Honduras, and white French settlers were known to have inhabited St. Vincent as early as 1719.

Population Estimates After British Acquisition.—The population estimate for 1763, the year Great Britain obtained possession of St. Vincent, was 7,100. (See Table 12.) The following year, the number of inhabitants was estimated to be 9,518, an increase of nearly 30 per cent in a single year, a reasonable growth considering the immediate movement of British planters and their slaves from the more exhausted estates in Jamaica, the Leeward Islands, and Barbados to the newly opened virgin soils of St. Vincent.¹³

Slave importations into the West Indies increased greatly in number after the Ceded Islands (Dominica, St. Vincent, Grenada, and Tobago) were settled in 1764, constituting the major component of population increase during the era of slavery. There was a steady stream of ships landing African slaves in the new British islands until the abolition of such trade in 1807.

Slaves in St. Vincent increased by 122 per cent during the interval from 1764 to 1805,¹⁴ nearly all of which was accounted for by regular importations rather than by natural increase since the fertility of slaves was extremely low, owing to the high sex ratios and high mortality rates.¹⁵ It was only after the West Indian slave trade was abolished in 1807 (and enforced in the British West Indies in 1808) that plantation owners were forced to give consideration to the health of their chattel workers because new labor for the sugar estates could now only be replaced by children born to black slaves resident on their plantations.

TABLE 22

COMPONENTS OF POPULATION CHANGE, ST. VINCENT, 1755 to 1960

Year	Sex	Total Population	Annual Change	Mid-year Population	Inter-censal Births ^a	Inter-censal Deaths ^b	Inter-censal Natural Increase	Estimated Inter-censal Net Migration	Crude Birth Rate (per 1,000)	Crude Death Rate (per 1,000)	Natural Increase (per 1,000)	Net Migration (per 1,000)
Inter-censal Estimates												
1755		3,400	—	—	—	—	—	—	—	—	—	—
1763	29	2,100	3,300	5,450	—	—	—	—	—	—	—	—
1774	4	9,518	2,618	8,309	—	—	—	—	—	—	—	—
1787	23	13,693	4,085	11,500	—	—	—	—	—	—	—	—
1805	18	28,250	8,075	23,002	—	—	—	—	—	—	—	—
1823	13	27,808	450	27,600	—	—	—	—	—	—	—	—
From Enumerations												
1844	9	27,246	-637	27,376	—	—	—	—	—	—	—	—
1854	7	30,170	2,890	26,783	—	—	—	—	—	—	—	—
1864	10	31,722	3,513	28,109	13,030	8,705	4,325	4,72	39.04	35.31	3.73	1.53
1874	12	33,722	3,913	30,722	13,530	8,710	4,820	-1,347	40.09	34.44	15.65	-3.99
1884	13	40,558	4,860	35,118	16,320	9,610	6,710	-1,750	42.81	35.21	7.60	-4.43
1894	13	41,054	506	40,801	16,960	10,400	6,560	-3,465	41.70	31.81	10.89	-14.37
1911	20	41,877	823	41,466	18,560	10,360	8,200	-3,465	38.22	19.37	18.85	-13.93
1921	10	44,447	3,256	41,191	17,660	8,340	9,320	-5,406	38.22	18.05	20.17	-12.57
1931	10	47,661	3,514	46,264	17,660	8,340	9,320	-5,406	38.22	18.05	20.17	-12.57

TABLE 12 (continued)

Absolute Change	Estimated Mid-Interval Population ^a	Inter-censal Births ^b	Inter-censal Deaths ^b	Inter-censal Natural Increase	Estimated Inter-censal Net Migration	Crude Birth Rate (per 1,000)	Crude Death Rate (per 1,000)	Natural Increase (per 1,000)	Rate of Net Migration (per 1,000)	Annual Rate of Change (1)	Surviving Time (years)
15,686	54,804	37,640	13,350	19,490	-5,604	39.95	16.24	23.71	-7.06	1.67	41.3
16,301	70,798	44,180	14,750	29,430	-11,149	44.37	14.66	29.71	-11.23	1.65	37.5

^a Population estimates are required to determine the annual rates for the formula used by the author is:

$$\bar{P} = P_1 + \frac{n}{N} (P_2 - P_1)$$

\bar{P} = the estimated mid-interval population;

P_1 = the population at a given initial date;

P_2 = the population at a given later date;

n = the number of years between P_1 and P_2 ;

N = the number of years between P_1 and the mid-interval date.

George W. Barclay, *Techniques of Population Analysis* (New York: 1941).

^b These figures from: Joyalain Byrnes, "Population Growth in St. Vincent," *Geographical Magazine*, 1963, Table 1, p. 155. All subsequent rates were calculated from these figures.

Despite conflicting reports of the total population of St. Vincent after the slave trade was curtailed in 1807, it is probable that the island's demographic growth slackened considerably.¹⁶ The population estimates for 1805 and 1812, which straddle the date of abolition of slave trading to St. Vincent, show an absolute increase in the 7-year period of 8,905, an annual rate of growth of 5.53 per cent, the highest on record after the initial colonization in 1764. (See Table 12.) With the understanding that the data are questionable, it is possible, nonetheless, to theorize that most of this growth resulted from slave imports before 1807.

The St. Vincent legislature was aware of the agitation in Britain to end slave trading and sensed its imminent demise. This anxiety must have been acute after the "Carib Country" lands on the Windward coast were forfeited to the Crown and opened to settlement in 1802, requiring the use of many slaves to work the new sugar estates.¹⁷ Between 1764 and 1812, the average number of African slaves landed in St. Vincent each year was 365, while it is recorded that during the first year after the opening of the Carib Country lands, 1,540 slaves were disembarked in Kingstown.¹⁸

After abolition of the slave trade, the annual rate of growth of the total population of St. Vincent fell to a mere 0.13 per cent between 1812 and 1825. (See Table 12.) Since the slave population accounted for almost nine-tenths of the population in 1812, it is evident that between 1819 and 1833, the annual rate of population change was -0.68 per cent. This

tends to reinforce the idea that slaves were unable to increase their numbers by reproduction alone.

The rapid decrease in the number of ex-slaves between 1834 and 1844—a decline of 9,102 or an annual rate of change of -8.29 per cent—may be deceptive for two reasons. First, as emancipation approached, slave owners apparently began freeing unneeded workers. When the Apprenticeship period (1834 to 1838) began, persons formerly called "slaves" were termed "labourers" [sic]. The sharp dip in the number of "labourers" was the result of immediate freedom granted to children under 6 years of age and to the unproductive elderly and infirm. After 1838, not all blacks remained on the estates as laborers; therefore, the population estimates included only those few thousands who opted to live on the estate lands for wages.¹⁹

Secondly, a factor affecting the decrease in blacks before the onset of Apprenticeship was the age composition of slaves. Those who were African-born, if they survived into the period of slave registration (1817 to 1832), tended to concentrate in the older age groups, adversely affecting the mortality rate, at the same time contributing little to the fertility of their population group.²⁰ A positive rate of growth among the black population must be assumed to have appeared around the 1830s, as native Vincentian blacks, born after the curtailment of the slave trade in 1807, were able to affect the reproduction performance of the total population.

The Era of Alien Labor Immigration, 1844 to 1881

After Apprenticeship had failed to convert ex-slaves to the joys of plantation labor, there occurred in St. Vincent a period of population change which was marked by the introduction of foreigners—a direct response to the unwillingness of the newly freed slaves to move immediately to paid estate work in the sugar fields. The intransigence of the plantation owners on the issues of wages and perquisites for hired workers and their determination to continue the monocultural production of muscovado sugar in the face of growing competition from the more modern enterprises operating in the West Indies led them to seek an abundant and inexpensive supply of foreign indentured immigrants.²¹

Between 1844 and 1880, St. Vincent's population grew from 27,248 to 40,548. During the same 37 years, some 5,575 indentured aliens were introduced, so that they and their offspring were an integral part of the island's increase. (See Table 4.) The overall rate of population growth in this period was 1.06 per cent a year, which Bogue defines as a "moderate" rate of change.²² At this rate, the population could be capable of doubling in 65 years.²³

Three groups of immigrant workers were brought to St. Vincent in two separate waves. Between 1844 and 1862, the bulk of Portuguese Madeirans and "liberated" Africans arrived, totalling 3,138. (See Table 4.) The East Indian indentured workers began arriving from time to time between 1861 and 1880, finally reaching a total of 2,429 over the 20-year span. (For details concerning immigrant groups, vide supra Chapter IV.)

1844 to 1851.—The introduction of the Portuguese Madeirans and Africans occurred mostly before the census of 1851. The inter-censal rate of population growth between the first two official population censuses (1844 and 1851) was 1.43 per cent a year. (See Table 12.) According to Bogue, such a rate of growth would be considered "rapid" and would double a population in little over 48 years.²⁴ On an inter-censal basis, this was the fastest annual rate of increase experienced in St. Vincent before 1946.

The 2,108 Madeirans and 809 Africans brought to the colony between 1844 and 1851 exceeded the absolute increase in population by 37; therefore, it must be assumed that a large, undertermined number of native Vincentians left the island to seek work elsewhere, especially in Trinidad and Tobago.²⁵ It follows that the addition of these 2,917 immigrant workers (amounting to 10.71 per cent of the 1844 population) boosted the rate of growth to its high level. Comparable rapid rates of growth were found in other Eastern Caribbean colonies at the same time. The average annual rates of growth for Barbados, St. Lucia, and Grenada were 1.52 per cent, 2.09 per cent, and 1.74 per cent, respectively.²⁶

1851 to 1861.—In this inter-censal period, population grew from 30,128 to 31,755, an absolute increase of only 1,627, or at an average annual rate of 0.53 per cent. (See Table 12.) Several reasons may account for this marked decrease in population growth. First, this was a time of crisis in the sugar

industry as duties on sugar imported into the metropolitan market were gradually equalized, a process fully accomplished by 1854.²⁷ The results of increased competition from other producers had dire results on Vincentian sugar.

Secondly, the number of indentured laborers landed in Kingstown was sharply reduced. Portuguese Madeiran immigration had ceased after 1850, while a mere 213 Africans were brought in, all of them in 1860 and 1861. (See Table 4.) The number of East Indians landed amounted to a single shipload of 259. In all, there was a reduction of 84 per cent in the amount of alien labor imported—from 2,917 to 472.

Thirdly, a severe cholera epidemic swept the Eastern Caribbean islands in 1854, causing at least 600 deaths in St. Vincent.²⁸ Finally, there was continued emigration of Vincentian men to Trinidad and other islands in the Lesser Antilles in search of higher paying jobs. Although much of the data is estimated information, the combination of reduced immigration of foreign indentured workers, increased mortality from epidemics, and the loss of local workers through emigration provides a logical explanation for the slow growth of population during these years.

1861 to 1871.—It was during this decade that major attempts were made to revitalize the distressed sugar economy in St. Vincent. The West Indian Encumbered Estates Act had been passed in the legislature in 1857, initiating the sale of abandoned and indebted estates. (Vide supra Chapter IV.) Over half of the sales, however, took place during the years 1861

to 1871.²⁹ The demand for field hands grew with the renewed sugar production on the plantations, hence, it was in this 10-year period that the bulk of the East Indian indentured workers came to the colony.

From 1861 to 1871, the number of births are estimated to be 13,520 and deaths 8,240, resulting in a natural increase of 5,280. (See Table 12.) Despite the immigration of 1,302 East Indian "coolies," the net migration for St. Vincent amounted to a loss of 1,347 people, most of whom were in either temporary or permanent residence in Trinidad.³⁰ An average annual birth rate of 40.09 per thousand, a death rate of 24.44 per thousand, and a rate of net migration of -3.99 per thousand resulted in an inter-censal rate of population change of 1.17 per cent, more than double the previous rate.

1871 to 1881.—In the last decade of the era of alien labor immigration, the population of St. Vincent grew from 35,688 to 40,548, or at an annual rate of 1.28 per cent, slightly higher than in the previous decade. All the vital rates—birth, death, and net emigration—increased, although most of the growth can be accounted for by an increase in the birth rate, from 40.09 per thousand to 42.81. The absolute number of estimated births went from 13,520 to 16,320 over a 10-year period.

Immigration of East Indians continued, but at a reduced pace, as the total number disembarked in Kingstown was less than in the previous inter-censal period (1861 to 1871). Only 868 "coolies" were shipped to St. Vincent—or a reduction of 67 per cent. (See Table 4.) In addition, there was a steady ebb and

flow of seasonal workers between St. Vincent and the neighboring colonies, especially Trinidad, Barbados, Grenada, and St. Lucia.³¹

The Era of Emigration, 1881 to 1931

The last twenty years of the 19th century and the first thirty of the 20th century encompass some of the worst economic and natural disasters encountered in St. Vincent. The local estate owners found profits in sugar manufacturing greatly reduced as a consequence of the higher competitive abilities of the European beet sugar producers. By 1900, it, therefore, became imperative that other cash crops would have to be produced if these estates were to survive. Both Sea Island cotton and arrowroot starch quickly became the staple export cash crops during this period.

In contrast to the preceding 40-year period when foreign laborers were the dominant element of economic activity, the next decades saw so sharp an economic decline that even native Vincentians saw fit to depart their island, while East Indians, whose last indentures had expired by 1885, quickly moved to more promising areas. Laborers had, of course, been emigrating sporadically after emancipation, but as economic survival became more uncertain, the movement accelerated.

Population increased from 40,548 to 47,961, an absolute growth of only 7,413 in 50 years. The average annual rate of change was 0.34 per cent, compared to 1.06 per cent for the period 1844 to 1881. The estimated natural increase was 40,420, yet the change in total population was only 7,413, indicating

the extent of emigration. Given the economic and social disasters of this time interval, it is not surprising that so many people left the island. The small change in total population, resulting as it did from the high rates of emigration, occurred in spite of marked reductions in mortality for the island.

1881 to 1891.—It was during this inter-censal decade that the domestic sugar industry sustained irreparable damage. After 1880, European beet sugar producers began "dumping" their subsidized exports in the English market, forcing producers in St. Vincent to shut down or abandon their mill works. Economic depression in the early 1880s caused widespread unemployment in an already troubled economy. The only alternative left for many Vincentian men was to seek employment outside of the colony.

In the period 1881 to 1891, natural increase in St. Vincent was 6,450, while the absolute change was a mere 506. (See Table 12.) The annual rate of growth had declined from 1.28 per cent in the previous decade to 0.12 per cent. No records exist to indicate how many people left the island or how many times they may have gone and returned in this inter-censal period, but it is estimated that net migration (a residual number) was -5,955, undoubtedly a figure much smaller than the total movement over the 10 years. (See Table 12.)

1891 to 1911.—This period marks the demise of sugar as the leading cash crop and the emergence of Sea Island cotton as its dominant replacement. The transition from production of one crop to the other, however, was insufficient to stem the

flow of emigrants. With the disastrous hurricane in 1898 which caused 288 deaths and the Soufrière eruption which caused the deaths of between 1,300 and 2,000 persons, many unemployed laborers were forced to emigrate immediately in order to find jobs for the support of their families. Indicative of the distress in St. Vincent is the fact that over 60 per cent of the working population were unemployed during the 1890s.³²

Between 1891 and 1911, there was an absolute increase of only 823 persons.³³ Natural increase amounted to 16,490, an annual rate of change of 19.88 per thousand. Net migration is estimated at -15,667, or at an annual rate of -18.89 per thousand, the highest ever recorded by the official censuses. (See Table 12.) The result of the continued high emigration was an overall annual rate of growth for the colony of 0.10 per cent, the least registered since 1844. It is evident that St. Vincent was barely able to replace losses from emigration over the years 1881 to 1911, when the burden of economic transition and adjustment was heaviest.

1911 to 1921.—It was during this inter-censal decade that the Sea Island cotton industry became firmly established after it had been introduced in 1903. Arrowroot starch production vied with cotton as one of the top export commodities in this period. Both industries, however, were eclipsed very briefly by the resurgence of sugar manufacturing induced by the First World War, during which labor was more in demand in St. Vincent as estates tried to supply the Allies with tropical cash crops.

Total population in the island increased between 1911 and 1921 by 6 per cent, from 41,877 to 44,447. The average annual rate of growth was 0.60 per cent, a moderate improvement over the 0.10 per cent registered over the previous inter-censal decade. (See Table 12.) A natural increase of 8,160 (16,520 births and 8,360 deaths) was neutralized by a net outflow of 5,590 persons, indicating that even with an improved economic situation, Vincentians were still seeking better-paying jobs elsewhere.

Migration continued as a significant factor in population change. Throughout the decade of the 1910s, there were numerous government notices in the St. Vincent Government Gazette warning intending emigrants about the problems they would face when proceeding to foreign countries in the Caribbean area and Latin America. These were published at a time when Vincentians experienced growing immigration barriers and poor work conditions in the receiving countries. Emigrants from the island were moving not only to Trinidad, but also to banana plantations in Nicaragua, to sugar estates in Martinique, to railroad construction sites in Costa Rica, Venezuela, and Brazil. Panama continued to attract—by reputation and not by real job opportunities—many migrants from St. Vincent. After 1914, most of the canal construction was completed, and the little labor that was needed was recruited only by special agents assigned to this task. Indeed, most West Indians remaining in the construction zones had to be repatriated or had to seek employment in other countries.³⁴

1921 to 1931.—During this inter-censal decade, St. Vincent's economy was sustained by arrowroot starch production (primarily

an estate crop) and Sea Island cotton (grown both by estates and small farmers). The arrowroot industry suffered more than the cotton industry in the early 1920s as starch glutted the English market, causing prices to fall. Cotton production, and its attendant demand for field laborers, did not escape unaffected as the speculative price rise at the end of World War I reversed itself in the early 1920s.³⁵ Emigration, however, still continued, although it maintained approximately the same rate as that registered between 1911 and 1921.

Noteworthy of the period 1921 to 1931 was the added significance of reduced mortality as a factor in the population change in the colony. The absolute number of births registered increased over the preceding decade from 16,520 to 17,660, while the average annual crude birth rate remained fairly stable, dropping from 38.27 per thousand to 38.22. (See Table 12.) The inter-censal number of deaths, however, fell from 8,360 to 8,340, even as the total population increased, thus the crude death rate declined from 19.37 per thousand to 18.05. The difference between the birth rate and death rate (or the rate of natural increase) was 20.17 per thousand, up from 18.90 per thousand during the 1910s. Net migration maintained approximately the same level (-12.57 per thousand) compared to the preceding decade (-12.95 per thousand).

Migration from St. Vincent to other destinations in the Western Hemisphere occurred in the 1920s at the same time as a labor shortage was reported to exist in the island.³⁶ Workers emigrated to Trinidad, Barbados, the Dominican Republic, and

Cuba, most in search of employment in the cane fields or in the towns as domestic servants, for by now females were moving in large numbers to the neighboring British Caribbean colonies.³⁷ It must be pointed out that the migration stream of Vincentians was two-way; that is, a large migration stream in one direction (usually outward from St. Vincent) was matched by another large stream flowing inward. This was especially true because of the seasonal nature of Vincentian migration. The residual effect was most often a negative migration balance.

The absolute change in population between 1921 and 1931 was 3,514, growing from 44,447 in 1921 to 47,961 in 1931. The average annual rate of growth was 0.76 per cent, continuing the upturn in population expansion begun in 1921. (See Table 12.) While a marked diminution in the incidence of emigration accounted for most of the population increase in the 1910s, a reduction in the mortality rate accounted for most of the growth during the 1920s. St. Vincent, along with much of the underdeveloped world at that time, shared in the world-wide improvement in disease prevention that was evident after 1920.³⁸

The Era of Rapid Population Growth, 1931 to 1960

The years between 1931 and 1960 may be considered the most important demographic period of the 20th century for St. Vincent. In the 29 years after the census of 1931, St. Vincent experienced its most rapid rate of growth since the first official census had been taken in 1844. The average annual rate of growth was 1.72 per cent, considered to be "very rapid growth" (capable of doubling the population in a little over 35 years).³⁹ This

noticeable increase in the rate of growth resulted from the combined effects of births, deaths, and net migration, each contributing an important share in the expansion of total population.

1931 to 1946.—Two noteworthy events affected the rate of population growth in this period. First, the worldwide trade depression of the 1930s reduced drastically the value of exports of Vincentian arrowroot starch and Sea Island cotton. Because all of the Caribbean colonies were suffering economic crises of their own, many of the governments enacted strict immigration laws to prevent foreign workers from competing with domestic laborers for the few available jobs.⁴⁰ The effect was to reduce greatly, but not eliminate completely, the emigration from St. Vincent.

In most studies of international migration, it is generally axiomatic that the "volume of migration flow is very markedly influenced by economic conditions in the receiving country."⁴¹ Similarly, net migration is affected by conditions in the sending country. During the 1930s, St. Vincent experienced an adverse employment situation that tended to "push" people into migration streams, but when all possible destinations were undergoing the same economic misfortune, the effect was neutralized. When emigrants are unemployed, as they were during the Great Depression of the 1930s, they often attempt to return to their places of origin, on the grounds that it is better to be unemployed or underemployed at home than abroad.⁴² In fact, St. Vincent passed The Emigrant Protection Ordinance

Act of 1924, which required a deposit of £5 from each prospective emigrant before departure, for the specific purpose of repatriating destitute and unemployed Vincentians who wanted to return to the island.⁴³

The second major event of the period between 1931 and 1946 was World War II. Although arrowroot starch and Sea Island cotton production suffered from reduced demand and prices during the trade depression of the early 1930s, the arrowroot industry was better situated vis-a-vis its market in the United States than was the cotton industry with its English market, especially as the war started in Europe. Both industries, nevertheless, were forced to reduce production as shipping space became scarce and labor shortages quickly developed, a consequence of the renewed emigration to other Caribbean colonies. Laborers who owned or had access to farmland began planting food crops to meet the demand in the Eastern Caribbean colonies, particularly in Trinidad.⁴⁴

The establishment of an American military base in Trinidad and the increase in petroleum production there and in the Netherlands Antilles created many higher paying jobs for immigrants, including Vincentians. Their absence from St. Vincent and the concomitant loss of small farmers who found it profitable to grow food crops for export created the labor shortage that was acknowledged throughout the war years, but particularly up through 1943.⁴⁵

War conditions precluded the taking of a census in St. Vincent until after the war; therefore, the inter-censal period was increased to 15 years. Total population increased

by 13,686, from 47,961 in 1931 to 61,647 in 1946. The average annual rate of change was 1.67 per cent for the 15-year period, more than double the rate for the previous inter-censal period. (See Table 12.)

Most of the growth was accounted for by a continuing decline in the crude death rate and a sharp reduction in net emigration (from -12.57 per thousand in 1931 to -7.06 per thousand in 1946). The total number of migrants, however, was greater than the result measured by the 1946 census, for the inter-censal migration figure only measures the net difference between two censuses after births and deaths have been accounted for. Absolute net migration for the period 1931 to 1946 is estimated to be -5,804. (See Table 12.) In two years alone, 1941 and 1942, there was an absolute net migration of -3,570, which surely did not measure the total number of people who moved.⁴⁶ Beginning in 1943, the emigrants in Aruba and Curaçao in the Netherlands Antilles began returning to St. Vincent in large numbers as the need for their services became less acute.⁴⁷

The crude death rate fell from 18.05 per thousand in 1931 to 16.24 per thousand in 1946, as a consequence of improved sanitation and public health operations that were instituted by the recommendations of the West Indian Royal Commission of 1938-39.⁴⁸ The crude birth rate increased from 38.22 per thousand in 1931 to 39.95 in 1946, equalling the estimated birth rate of the 1860s and 1870s. (See Table 12.) Another indicator of fertility, The Child-Woman Ratio, confirms the upturn in child-bearing that occurred in the 1930s and the 1940s. From a 20th-century low in 1931 of 245 children (under

5 years of age) per one thousand women of child-bearing age (15 through 49 years), the ratio increased to 303 by 1946, a 19 per cent change in 15 years.⁴⁹ (See Table 13.)

1946 to 1960.—This last inter-censal period of population analysis was the most dramatic over the 116 years of St. Vincent's censal history. The result of rapidly rising fertility rates and continuously declining mortality rates was to cause the rate of natural increase to expand enormously. Had it not been for the ameliorating effects of periodic large-scale emigration, the total population of St. Vincent would have been much greater than it was at the time of the 1960 census.

The causes of the population changes evidenced during these years appear to be closely linked with the economic conditions in the Caribbean and the United Kingdom (which acted as a magnet for West Indians as immigration to non-Commonwealth areas became more uncertain). St. Vincent underwent changes as its small-farmer-based Sea Island cotton industry suffered from uncertain market demand and prices in Britain, the chief buyer of the cotton. As a consequence, many farmers began to reject cotton for bananas, the staple cash crop which appeared in the island in 1953. Destruction of the only cotton gin in St. Vincent by fire in 1959 effectively eliminated this economic activity as a source of employment and income.

Estate arrowroot production, the mainstay of the economy in the early years after World War II, levelled off after 1951 despite the strong demand in the United States for starch. Increasingly, supply in the industry became a major drawback,

TABLE 13

CHILD-WOMAN RATIO, ST. VINCENT
1911-1960

Census Year	Number of Children, 0-4 years of age	Number of Females, 15-49 years of age	Child-Woman Ratio ^a
1911	3,091	12,297	251
1921	3,302	12,740	259
1931	3,349	13,694	245
1946	4,705	15,522	303
1960	8,010	22,121	362

Source: Author's calculations from vital statistics given in Table 12.

^aThe Child-Woman Ratio represents the number of surviving births during exactly the 5-year period preceding a census for each one thousand females of child-bearing age (15 through 49 years). The formula used is:

$$\text{Child-Woman Ratio} = \frac{P_{0-4}}{f_{15-49}} \cdot 1,000$$

where: P_{0-4} represents the number of children, male and female under 5 years of age; f_{15-49} represents the number of females between the ages of 15 and 49, inclusively.

even with monopoly prices and concerted government action after the war aimed at inducing more small farmers to plant arrowroot rhizomes. By 1960, there was little prospect for expanding the supply of arrowroot starch, thus, the largest buyer in the United States decided to use substitute starches more readily available in America. Once again another source of employment in a rapidly growing population was removed.

One bright event in the period 1946 to 1960 was the timely appearance and astonishing growth of banana cultivation in St. Vincent. This quick and effective means of earning a livelihood was introduced in 1953, at a very propitious time. Yet even with the opportunities available in the banana industry, Vincentians followed a familiar path—young adults emigrated in search of higher-paying or more satisfactory jobs.⁵⁰

While the economy of St. Vincent was undergoing radical shifts, the population continued to grow very rapidly. Population, which numbered 61,647 in 1946, increased to 79,948 by 1960, an absolute increase of 18,301. The average annual rate of growth was a record high of 1.85 per cent. (See Table 12) The annual rate of growth, however, was considerably less than the rate of natural increase over the period 1946 to 1960, which averaged 2.97 per cent a year. It was large-scale emigration which aided the colony in its attempts to provide sufficient satisfactory jobs by reducing the number of job seekers. How the economy of St. Vincent could have survived the 20th century without the escape valve of emigration is a matter for conjecture.

An examination of the annual rates of change of the components of population growth between 1946 and 1960 reveals that demographic pressure was mounting. (See Table 14.) The steady rise in the crude birth rate after 1946 was capped by a record high of 54.44 per thousand in 1957. At the same time, mortality rates declined relatively slowly until 1956 when there was an appreciable drop, followed by a marked upturn 2 years later.

The rate of net migration evidenced a rather erratic pattern in the years between 1946 and 1960. Between 1947 and 1959, every year was characterized by a negative rate of migration, with the exception of 1951 and 1954. (See Table 14.) Net emigration, however, fluctuated from a low of -3.44 per thousand in 1953 to a high of -30.28 per thousand in 1958. The late 1940s and early 1950s were years when many wartime emigrants to Trinidad and the Netherlands Antilles returned.⁵¹ So many did so, in fact, that in 1951, the rate of net migration was positive (14.88 per thousand). Negative net migration occurred for the two following years, but again, in 1954, net migration became positive as 170 more persons arrived in St. Vincent than departed. After 1954, the rate of net emigration continued at a rapidly accelerating pace, especially during the years that encompassed the historic but abortive attempt at federation among the British West Indian governments.⁵² In 1958 and 1959, there was a net immigration of over 10,000 West Indians into Trinidad as restrictions to labor movements were eased or lightly enforced by the Trinidad Government in anticipation of the establishment

TABLE 14

VITAL RATES, ^a ST VINCENT, 1947-1959

Year	Estimated Mid-Year Population	Number of Births	Number of Deaths	Estimated Net Migration	Crude Birth Rate (per 1,000)	Crude Death Rate (per 1,000)	Rate of Natural Increase (per 1,000)	Rate of Net Migration (per 1,000)	Annual Rate of Growth(%)
1947	63,645	2,560	1,050	- 980	40.22	16.50	23.72	-15.40	0.83
1948	64,380	2,480	970	- 580	38.52	15.07	23.45	- 9.01	1.44
1949	65,320	2,590	900	- 750	39.65	13.78	25.87	-11.48	1.44
1950	66,455	2,660	1,020	- 310	40.02	15.35	24.67	- 4.66	2.00
1951	68,565	2,930	1,060	+1,020	42.73	15.46	27.27	+14.88	4.22
1952	70,525	2,900	1,120	- 770	41.12	15.88	25.24	-10.92	1.43
1953	71,890	3,070	1,130	- 240	42.70	15.72	26.98	- 3.34	2.36
1954	73,815	3,120	1,130	+ 170	42.27	15.31	26.96	+ 2.30	2.93
1955	75,470	3,160	1,100	-1,330	41.87	14.58	27.29	-17.62	0.97

TABLE 14
(continued)

Year	Estimated Mid-Year Population	Number of Births	Number of Deaths	Estimated Net Migration	Crude Birth Rate (per 1,000)	Crude Death Rate (per 1,000)	Rate of Natural Increase (per 1,000)	Rate of Net Migration (per 1,000)	Annual Rate of Growth (%)
1956	76,720	3,600	930	-1,340	46.92	12.12	34.80	-17.47	1.73
1957	78,255	4,260	990	-1,550	54.44	12.65	41.79	-19.81	2.20
1958	79,270	3,930	1,220	-2,400	49.58	15.39	34.19	-30.28	0.39
1959	79,800	4,050	1,140	-2,160	50.75	14.29	36.46	-27.07	0.94

^aAll vital rates were calculated by the author from data given in: University of the West Indies, Estimates of Intercensal Population by Age and Sex and Revised Vital Rates for British Caribbean Countries, 1946-1960, Census Research Programme, Publication No. 8 (Port-of-Spain, Trinidad and Tobago: Central Statistical Office, [1964]), Table C. 8, p. 43.

of the Federation of the West Indies and the location of its capital in Trinidad. Nearly all of this immigration was accounted for by migrants from St. Vincent and Grenada.⁵³

The extent of emigration from St. Vincent is clearly indicated by comparing the natural increase in the colony with the net migration. Considering the years for which complete data are available in this period (1947 through 1959), it is evident that the total natural increase amounted to 28,000 (41,760 births and 13,760 deaths), while net migration was -11,220. (See Table 14.) This means that 40 per cent of the natural increase in this time interval was neutralized by an emigration of Vincentian workers, both male and female.⁵⁴ It is obvious that emigration had reduced the rate of growth of the population from unprecedentedly high levels to lower but still extremely rapid rates. An analysis of the data for 1957, for example, when St. Vincent experienced its record high rate of natural increase (4.18 per cent a year), shows that the estimated total population of that year (78,255) would have doubled in approximately 17 years if there had been a zero rate of net migration. The actual rate of population growth for 1957, however, was reduced to 2.20 per cent by the exodus of young adults. Using 2.20 per cent as the rate of growth, the total population size in 1957 could have doubled in 32 years. Unfortunately, both contingencies are considered "explosive" growth rates.⁵⁵

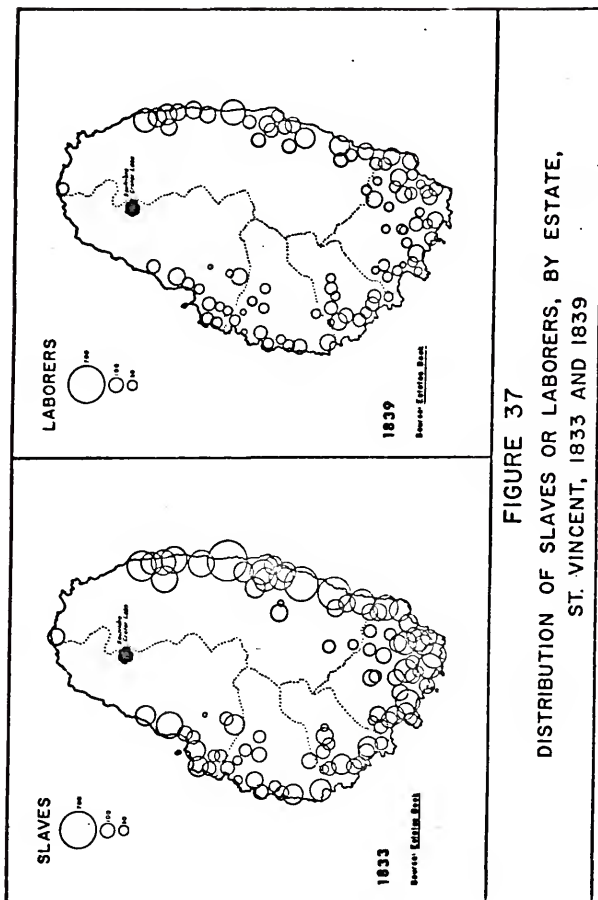
Population Distribution and Density

In order to gain a better understanding of St. Vincent's population geography, it is necessary to look at the spatial components of demographic change. Population distribution as shown by a dot (or point) map is one way to visualize the spread of population over the surface of an area. In addition to this non-quantitative approach, there is a quantitative measure used to supplement the description of population concentration—the population density or the number of persons per square unit of area.⁵⁶ This section will utilize both methods to show, as far as possible, the change in the spatial distribution and concentration of population in St. Vincent.

Population Distribution in St. Vincent

One constant in the many changing aspects of St. Vincent's demographic history has been the spatial distribution of the population. Once the aboriginal Carib Indians were effectively removed from their former settlements along the Windward coast, mostly by their forced deportation to the Bay of Honduras after the Second Carib War in 1797, the coastal lowlands and interior valleys were quickly turned to sugar production. The only way of ascertaining the precise distribution of the population in the pre-censal years (before 1844) is to map the slave population by sugar estates.⁵⁷ (See Figure 37.)

The use of the slave population as the main indicator of the spatial distribution of the total population is valid and relatively accurate, given the nature of demographic records of the 19th and early 20th centuries.⁵⁸ The crude estimates of



population for 1825 (the only year in this period in which the racial components of the total population were given) show that the slave segments of society accounted for approximately 85 per cent of the people.⁵⁹ The few thousand whites were located in Kingstown or on the sugar estates as owners or managers. Most of the "free coloured" [sic] people were probably situated in small villages or in Kingstown as petty merchants. The apportionment of slaves in 1833, therefore, is assumed to show where most of the black and white population resided.

As far back as 1833, and perhaps a quarter of a century earlier, the bulk of St. Vincent's population was distributed along the coastal lowlands over most of the island and up the interior valleys of the southern and western sides. (See Figure 37.) The ruggedness of the Leeward (western) side of St. Vincent necessitated the locating of sugar estate mill works (around which the slave quarters were built) far into the interior of this part of the island, often with three or more small mills in tandem along the same stream. Each one used stone and masonry dams to collect water for propelling the cane crushers, and within 40 yards of the crushers the slave barracks were usually situated.

Along the Windward (eastern) coast, the estates were generally larger and more widely spaced as a consequence of a later start in settlement and sugar production.⁶⁰ They came into existence after the turn of the 19th century, following the expulsion of the former Carib residents. The average number of slaves per estate on the eastern coast (made up mostly by

Charlotte Parish) was 236, while the average number along the Leeward coast (comprised of St. Andrew, St. Patrick, and St. David Parishes) was only 120.⁶¹ St. George Parish, which encompasses the capital of Kingstown and the southern end of the island, averaged 158 slaves on each estate.⁶²

The extremely dissected interior of St. Vincent, the area above 1,000 feet in elevation, was never settled and only in a few instances was it ever traversed, and then only for the illegal cutting of timber in order to make charcoal.⁶³ Permanent paths did not exist in the interior and only a few were used along the slopes of the Soufrière volcano in the north, mostly by persons from Chateaubelair on the Leeward side who sold their fish in Georgetown on the Windward side.

The pattern of settlement and population distribution between 1833 and 1839 has remained the same as late as 1960. An imaginary latitudinal line across the island bisecting the crater lake of the Soufrière serves to delimit the settled from the unsettled portions of St. Vincent. On the western, north-western, and northern slopes of the volcano, down to sea level, are found regions that have had little or no permanent settlements since the island became a British possession. Only a single, isolated estate was established in the northern reaches—Fancy Estate, located at the northern tip of St. Vincent. (See Figure 37.)

Although the slaves were emancipated in St. Vincent in 1838, many were forced by necessity and lack of available accessible land near their former estates to remain where they were. Even those who squatted on estate mountain lands or Crown

Lands still lived in "free" villages established around the old estates. Cultivators usually walked to their plots in the higher fields, returning in the evening to their village homes in the lower valleys. Permanent settlement, therefore, has not varied appreciably since emancipation except in St. George Parish, where many small farmers began establishing themselves in the broad Marriqua Valley in the last quarter of the 19th century.⁶⁴

The distribution of population according to the 1960 population enumeration reveals a pattern of dispersion similar to the slave distributions of 1833 and 1839. (See Figures 37 and 38.) Most obvious in the 1960 distribution is the vast interior area completely devoid of permanent habitation after nearly two centuries. The slopes of the Soufrière, covered by ash from the 1902 eruption, and the steeply dissected sides of the old volcanic spine of St. Vincent still remain uninhabited. The inaccessibility of these regions, especially around the Soufrière, is attested to by the absence of an all-weather highway along the north coast between Chateaubelair and Georgetown. A dirt road connects Georgetown with Fancy Estate (a present-day land settlement area) but is subject to flooding in the rainy season. Between Fancy Estate and a point just north of Chateaubelair (Richmond Beach), there exists a footpath over the lower Soufrière slopes that extends down to the sea, leaving little in the way of a coastal beach. Sheltered harbors are absent along the northern half of the island, which most likely accounts for the historical dearth of estate

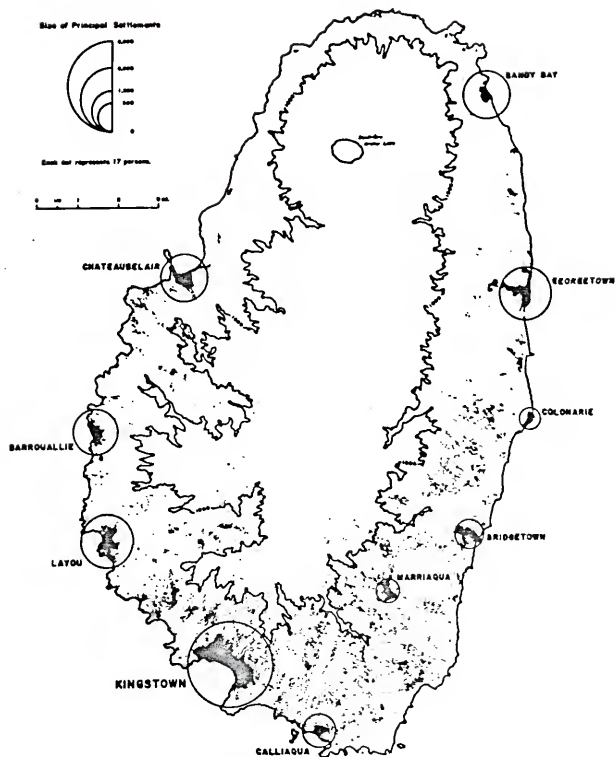


FIGURE 38
POPULATION DISTRIBUTION, ST. VINCENT, 1960

activity and population settlements in this part of St. Vincent. Most of the sugar exported to Britain in the 19th century was first moved by lighters to Kingstown for later transshipment on merchant vessels.

The main concentrations of population have been along the coasts and the lower reaches of the interior valleys, south of Chateaubelair and Georgetown, increasing in density towards Kingstown. A rough correlation exists between the 1,000-foot contour line and the upper reaches of habitation. (See Figure 38.) It was not until 1912 that the Government of St. Vincent delimited its Crown Lands as that area above 1,000 feet in elevation, formally eliminating these lands from possible cultivation, with only an occasional sale to small farmers. The purpose of this action was to set aside forest reserves as a means of protecting the watershed, and was, in effect, formal recognition of the precariousness of farming far into the interior at high elevations.⁶⁵

Population Density in St. Vincent

To obtain a quantitative measure of concentration of population, it is possible to determine the "density of population," the ratio of persons to unit area. The visual effect of a dot distribution map shows the relative degree of crowding, while a density map provides a numerical scale for spatial comparisons. The advantage of a numerical representation of concentration, however, is dependent upon the size of the unit areas used. The smaller the unit area used, the more realistic the density figure will be. For St. Vincent, most of the 19th-century population data were given only for large administrative

units such as the parishes.⁶⁶ The smaller enumeration districts and sub-districts of the census of 1946 and 1960 do not coincide directly with the census units of the 1800s, thus temporal comparisons are restricted to the censuses that used the same population districts. Only short-run comparisons are possible.

An examination of population densities in the Windward Islands and Barbados shows that St. Vincent fell midway between the faster and the slower growing colonies. (See Table 15.) The population density used in this inter-island comparison is a straight "arithmetical density," that is to say, the area used is the total area of each island.⁶⁷ The relative position of St. Vincent in this array of densities is unaffected by the use of total area as the denominator. Both Grenada and Barbados started with higher population densities in 1844 and exceeded St. Vincent up to 1960. Dominica and St. Lucia, although they started with lower densities and remained less crowded than St. Vincent, grew fairly rapidly. All Windward Islands grew in density, but St. Lucia achieved the greatest increase, in that density was 311 per cent higher in 1960 than it had been in 1844. Grenada and St. Vincent were second and third, with increases over the 116-year period of 207 per cent and 194 per cent, respectively. Dominica ranked fourth in increased density (165 per cent), while Barbados recorded only an 82 per cent gain. (See Table 15.)

The degree of crowding in St. Vincent increased from 182 persons per square mile in 1844 to 535 by 1960. The larger islands in 1960, Jamaica and Trinidad, had arithmetical

TABLE 15

POPULATION DENSITY, SELECTED CARIBBEAN COUNTRIES,
1844-1960

Year	Number of Persons Per Square Mile				
	Dominica	St. Lucia	St. Vincent	Grenada	Barbados
1844	74	90	182	217	736
1851	—	104	202	246	819
1861	82	114	212	240	920
1871	89	136	239	283	976
1881	92	165	271	319	1,035
1891	88	181	275	400	1,102
1911	111	209	280	502	1,038
1921	122	221	297	499	944
1931	—	—	321	—	—
1946	156	301	412	544	1,161
1960	196	370	535	667	1,340
Per Cent Increase 1844-1960	165 %	311 %	194 %	207 %	82 %

Source: Author's calculations.

densities of only 236 and 260 per square mile, respectively.⁶⁸ Barbados is often cited as an example of one of the world's most crowded places, yet a more refined density figure shows that the island's population concentration is not as far ahead as the simple "arithmetical density" indicates.⁶⁹

In St. Vincent, for example, by excluding the area that is uninhabitable, under present and past conditions, the density increases markedly. (See Table 16.) In 1844, St. Vincent's "arithmetical density" was 182 persons per square mile, or 25 per cent of the density of Barbados. By 1960, this had increased to 535 per square mile or 40 per cent of that of Barbados. (See Table 15.) The recalculated densities for the "main" island of St. Vincent, using as the base area only the land below 1,000 feet in elevation, show that the "real" density of St. Vincent in 1844 was 339 per square mile or 46 per cent of the level of Barbados. By 1960, population concentration had increased to a record high of 1,002 per square mile—75 per cent as great as that of Barbados.⁷⁰ (See Table 17 and Figure 39.) The "real" density determined above is much more realistic in terms of overcrowding. When the problem of overpopulation is considered in the Eastern Caribbean, St. Vincent must be included as an example of a very densely populated island.⁷¹ The "arithmetical density" of Barbados is more realistic than that of St. Vincent because a greater proportion of the former is accessible for cultivation and habitation, and thus its "real" density will not significantly change its status.⁷²

TABLE 16

POPULATION DENSITY, ST. VINCENT, 1844-1960

Year	Census Population	Number of Persons Per Square Mile			
		Total Colony	Total Colony Below 1,000' in Elevation	"Main" Island Below 1,000' in Elevation	Grenadine Dependencies
1844	27,248	182	296	339	112
1851	30,128	202	327	377	112
1861	31,755	212	345	394	132
1871	35,688	239	388	447	134
1881	40,548	271	441	507	156
1891	41,054	275	446	508	178
1911	41,877	280	455	513	203
1921	44,447	297	483	540	238
1931	47,961	321	521	592	213
1946	61,647	412	670	765	259
1960	79,948	535	869	1,002	294

Source: Author's calculations

TABLE 17

AREA OF ST. VINCENT

Parish or Island	Total Area (square miles)	Per Cent of "Main" Island (%)	Area Above 1,000' in Elevation (square miles)	Area Below 1,000' in Elevation (square miles)	Per Cent of Area Below 1,000' (%)
"Main" Island	132.18	100	57.44	74.74	57
St. David	30.76	23	19.59	11.17	36
St. Patrick	16.99	13	7.40	9.59	56
St. Andrew	11.89	9	4.34	7.55	63
St. George	19.47	15	3.29	16.18	88
Charlotte	53.07	40	22.82	30.25	57
Grenadines	17.30				
Bequia	7.00				
Union	4.00				
Mustique	2.00				
Canouan	2.60				
Mayreau	1.00				
Balliceaux & Battavia	0.70				

Source: The parish areas were planimetrically measured by the author. The areas of the major Grenadine dependencies were provided by the staff of the St. Vincent Lands and Surveys Department.

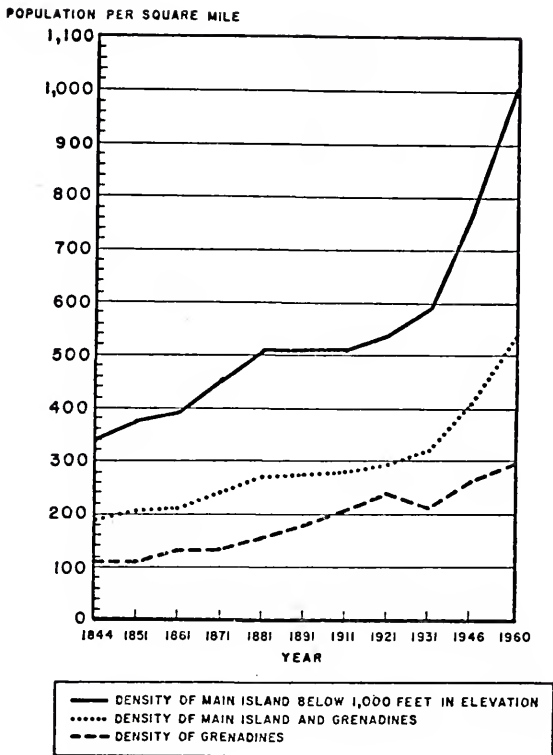


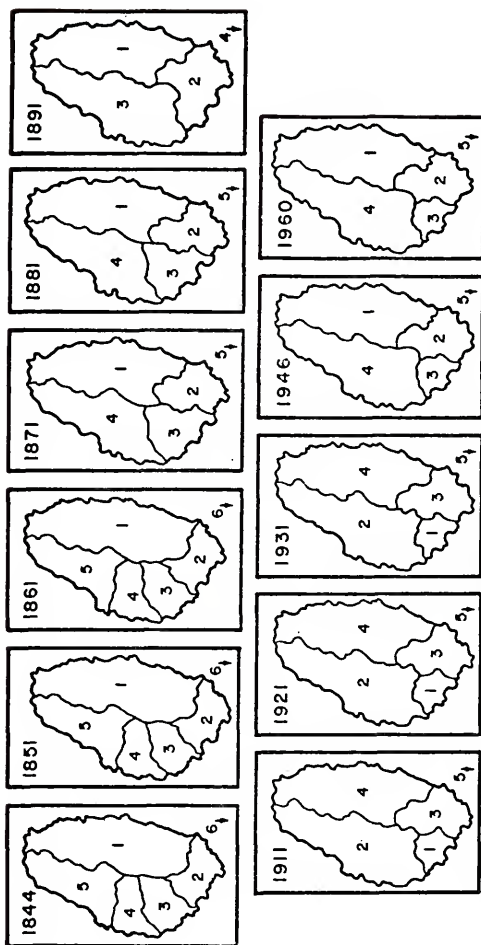
FIGURE 39
 POPULATION DENSITY, ST. VINCENT,
 1844-1960

The Grenadine dependencies in St. Vincent have increased in population concentration more slowly than the "main" island. Population on the 17.30 square miles of small islands increased in density from 112 per square mile to 294 over the period 1844 to 1960. (See Table 16 and Figure 39.)

The "real" density of St. Vincent reflected the periods of population growth. (See Figure 39) A steady increase was evidenced from 1844 to 1881, followed by a marked slow growth between 1881 and 1921 as the large-scale emigration during these years siphoned off "surplus" population. The growth in fertility after 1921 and the reduction in mortality and morbidity acted as stimulants to greater population size and density. Only the Grenadines experienced an absolute decrease in density over the 116-year period under examination.

Percentage Distribution of Population

The inter-censal changes in the areas of population enumeration districts in the "main" island of St. Vincent have precluded a simple comparison of historical densities which could reveal the numerical and spatial variation in population concentration. Only a general picture is made possible by the judicious agglomeration of census reporting units from one census to another. (See Figure 40.) The percentage distribution of population in the various census enumeration districts is used to show the relative internal concentration of population in the colony.



Note: For names of enumeration districts, see TABLE 18.

FIGURE 40
MAJOR POPULATION ENUMERATION DISTRICTS,
ST. VINCENT, 1844-1960

1844 to 1861.—For this period, the political administrative parish boundaries were used as census reporting districts, thus the census dates 1844, 1851, and 1861 can be compared only with each other. (See Figure 40.) The percentage distribution of population by parish is the smallest census unit available and affords a very general picture. The assumption still holds that throughout its historical past the population of St. Vincent has resided below the 1,000-foot contour line. It is apparent that there was relatively little inter-parish change in the proportion of population located in the "main" island between 1844 and 1861 as there was no more than a 1 per cent change between the individual enumerations.

The more accessible Windward side of the island (Charlotte Parish) contained an average of 28 per cent of the total population on 40 per cent of the area of the "main" island. (See Tables 17 and 18.) In addition, Charlotte Parish had approximately 40 per cent of its total area below 1,000 feet in elevation. The southern end of the "main" island (St. George Parish) contained an average of 40 per cent of the population on 15 per cent of the land area. Eighty-eight per cent of this southern parish was below 1,000 feet, accounting for its high average density of 725 persons per square mile compared to 279 per square mile in Charlotte Parish.⁷³

The three parishes along the Leeward side of the main island (St. Andrew, St. Patrick, and St. David) have in historical terms been more difficult to access and more

TABLE 18
 PERCENTAGE DISTRIBUTION OF POPULATION, BY ENUMERATION DISTRICT,
 ST. VINCENT, 1844-1861

Enumeration District ^a	Year									
	1844	1851	1861	1871	1881	1891	1911	1921	1931	1946 1960
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<u>Parish</u>										
1. Charlotte	27	28	29							
2. St. George	41	40	39							
3. St. Andrew	9	8	9							
4. St. Patrick	9	9	9							
5. St. David	8	8	8							
6. Grenadines	6	7	7							
Total	100	100	100							
<u>Police Districts</u>										
1. Windward				24	25					
2. Calliaqua				24	24					
3. Kingstown				29	25					
4. Leeward				16	19					
5. Grenadines				7	7					
Total				100	100					

TABLE 18 (continued)

Enumeration District ^a	Year											
	1844	1851	1861	1871	1881	1891	1911	1921	1931	1946	1960	
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
<u>Police Districts</u>												
1. Windward	--	--	--	--	--	--	28					
2. Kingstown	--	--	--	--	--	--	44					
3. Leeward	--	--	--	--	--	--	20					
4. Grenadines	--	--	--	--	--	--	8					
Total							100					
<u>Population Districts</u>												
1. "A" -- [Kingstown]	--	--	--	--	--	--	26	25	25			
"B" -- [Kingstown Suburbs]												
2. "C" -- [Old Leeward Area]	--	--	--	--	--	--	21	21	21			
3. "D" -- [Most of Calliaqua Area]	--	--	--	--	--	--	22	21	21			
4. "E" -- [Old Windward Area]	--	--	--	--	--	--						
5. "F" -- [Grenadines]	--	--	--	--	--	--	8	9	8			
Total							100	100	100			

TABLE 18 (continued)

Enumeration District ^a	Year										
	1844 (%)	1851 (%)	1861 (%)	1871 (%)	1881 (%)	1891 (%)	1911 (%)	1921 (%)	1931 (%)	1946 (%)	1960 (%)
<u>Population Districts^b</u>											
1. Eastern	—	—	—	—	—	—	—	—	—	26	26
2. Southern	—	—	—	—	—	—	—	—	—	23	23
3. Kingstown & Suburbs	—	—	—	—	—	—	—	—	—	24	26
4. Western	—	—	—	—	—	—	—	—	—	20	18
5. Grenadines	—	—	—	—	—	—	—	—	—	7	7
Total										100	100

^a For the location of the enumeration districts, see the census maps in Figure 40.

^b The enumeration districts for 1960 were based on the census district divisions of the 1946 census, thus, they are listed by the same title as in the census report of 1946 for purposes of comparison.

formidable in topography with their characteristic razor-back ridges, thus their share of population each averaged 8 to 9 per cent. Population density declined with increasing distance from Kingstown along the Leeward coast, averaging 335 persons per square mile for St. Andrew, 279 for St. Patrick, and 206 for St. David. The Leeward parishes together accounted for 45 per cent of the "main" island's land areas and had between 36 per cent and 63 per cent of their area below 1,000 feet, the proportion decreasing with increasing distance from Kingstown.

In the Grenadines, population concentration remained remarkably stable, varying from 6 per cent of the total population in 1844 to 7 per cent in 1946 and 1960. (See Table 17.)

1871 to 1891.—The change in the percentage distribution of population between 1871 and 1881 was negligible for the Windward and Calliaqua police districts (the census reporting units), as each contained about one-quarter of the colony's population. (See Figure 17.) The only measurable changes occurred in the Kingstown and Leeward police districts. (See Table 18.) The East Indian immigration and the later beginning of labor emigration were events of these years, both of which could explain some of the demographic changes in these districts. Between 1861 and 1880, there were 497 East Indians who were assigned to estates in the Leeward police district, while only 111 were sent to estates in the Kingstown district. Emigration which began around 1880 could have siphoned off the population

in the area surrounding the capital, as this was the main shipping port of the island. In the Grenadine dependencies, the proportion of people remained at 7 per cent of the colony's total population.

Those who organized the census of 1891 rearranged the census districts in such a way that meaningful comparisons today are sketchy at best. The Windward district still contained about one-quarter of the population and the southern area, encompassing St. George and part of Charlotte Parishes, registered 44 per cent of the people. One-fifth of the population was located in the Leeward district. The Grenadines still maintained their share of people—a slight increase from 7 per cent to 8 per cent as a consequence of the large-scale migration that affected the "main" island. (See Table 18.) Whenever Vincentians emigrated to Trinidad, they usually passed by way of the Grenadine Islands and Grenada, then on to Port-of-Spain, hence, some attrition in numbers of emigrants leaving the "main" island might be expected as they stopped temporarily or permanently in the islands along the passage route.⁷⁴

1911 to 1960.—The 20th-century censuses revealed few major changes in the percentage distribution of population. The censuses between 1911 and 1931 (when comparable enumeration districts were used) showed no more than a one per cent intercensal variation for the districts. (See Table 18 and Figure 40.) In the Grenadines, there remained the usual 8 per cent. Although the population districts in the "main" island each

contained between 21 and 26 per cent of the people, their re-drawn boundaries must be taken into consideration, for none of them coincided totally with the parish boundaries used in the 19th century. Likewise, the enumeration districts drawn for the census reports of 1946 and 1960 sub-divided the parishes. A valid generalization for the 20th century is that the parishes contained approximately the same proportion of people as existed throughout the censal periods of the 19th century. (See Table 18.) In essence, no major shifts in population concentration have developed in the island, despite the ebb and flow of migrants. A more precise long-term description is impossible, owing to the variations in the size of census districts.

Summary

There is no question that St. Vincent's population grew very rapidly after the British acquired the island in 1763. Most of this early growth could be attributed to the expansion of the slave population as the lucrative sugar industry developed before the cessation of slave trading. According to the crude pre-censal population estimates, St. Vincent's population grew at a high rate of 2.76 per cent a year between 1763 and 1812—a rate that doubled the population every 25 years.

During the era of census taking (1844 to 1960), population growth fluctuated from a record average annual high of 1.85 per cent between 1946 and 1960 to a mere 0.10 per cent between 1891 and 1911. At the rate of growth experienced during the

1950s, the island's population could double in about 37 years (from 79,948 to 159,896). More remarkable, however, is the potential increase in population that might have resulted had emigration not been a constant outlet for population pressure on available jobs after the mid-19th century. The rate of natural increase fluctuated from an estimated average annual low of 0.37 per cent during the 1850s to a high of 2.97 per cent during the period 1946 to 1960. At the rate of natural increase experienced during the 1850s (assuming a zero rate of migration), the doubling time for the population was 187 years, whereas, at the rate between 1946 and 1960, the doubling time was reduced to 23 years.

It is apparent that the variations in the dynamic components of population change (births, deaths, and migration) have been closely tied to economic and social conditions inside and outside of St. Vincent. Disruptions in the cash crop regime have been matched by large-scale emigrations to areas where better employment opportunities were expected but not always found. Even when labor shortages occurred in St. Vincent (as for example, during the Second World War), Vincentians still left the island for higher paying jobs elsewhere. The continued high rate of natural increase made long-run labor shortages unlikely. A reduced level of fertility, extended over a generation, could probably check the flow of emigrants by forcing labor wages high enough to compete with the perceived opportunities in the neighboring islands.

NOTES TO CHAPTER VI

¹G. W. Roberts, The Population of Jamaica (Cambridge, England: The Conservation Foundation at the University Press, 1957), p. 2.

²R. R. A. Kuczynski, Demographic Survey of the British Colonial Empire, Vol. III: The West Indian and American Territories (London: Oxford University Press for the Royal Institute of International Affairs, 1953), pp. 438-439.

³Ibid., p. 443. This was confirmed by field work in St. Vincent in 1967, 1968, and 1970 when the problems of incomplete vital statistics registration was encountered. A discussion with a visiting United Nations demographic statistical officer confirmed the author's observations.

⁴Acts of Saint Vincent, 1844-1847 (Kingstown: Registrar-General's vault.) n.p.

⁵Roberts, Jamaica, p. 6.

⁶The Compiler of Census for this enumeration acknowledged the carelessness of the reporters in the performance of their duties. See: Report on the Census of Saint Vincent, 1931 (Kingstown: Government Printing Office, 1931), p. 2. An inspection of age-sex distributions for 1911, 1921, and 1931 shows that the age group 5 through 9 years is unaccountably low for all three censuses. The same error in age reporting must have been carried over for all of these censuses.

⁷Although great care and organization went into the preparation and execution of the census of 1946, errors have appeared. By visual inspection of the 1946 age-sex pyramid, the author observed the common tendency of persons to misrepresent their ages. There was a noticeable concentration of people who reported their ages in numbers ending in 0 (20, 30, 40, etc.) and 5 (25, 35, 45, etc.). T. Lynn Smith's "age accuracy index" was calculated for the 1946 census and the resulting index numbers were 92.85 for males, 93.08 for females, and 93 for both sexes combined. A score of 100 indicates perfect age reporting; therefore, the 1946 index numbers reveal a considerable error in age reports. For a discussion of this index, see: T. Lynn Smith and Paul E. Zopf, Jr., Demography:

Principles and Methods (Philadelphia: F. A. Davis Company, 1970), pp. 154-155. An additional concern in this study of St. Vincent's population is the unfortunate fact that it has taken more than 10 years for the final reports of the census of 1960 to be published and distributed. For an analysis of the accuracy of age reporting in the 1960 census, see Chapter VII. The census reports prior to 1946 did not include an age breakdown by single years, thus the accuracy of the age groups cannot be tested, but must be assumed to be less reliable than those in 1946 and 1960.

⁸ Thomas Coke, A History of the West Indies, Containing the Natural, Civil, and Ecclesiastical History of Each Island: With an Account of the Missions (3 vols.; London: A. Paris, 1810), II, p. 184.

⁹ David L. Niddrie, "Eighteenth-Century Settlement in the British Caribbean," Transactions and Papers, The Institute of British Geographers, Publication No. 40 (1966), p. 78.

¹⁰ Lowell Joseph Ragatz, The Fall of the Planter Class in the British Caribbean, 1763-1833 (New York: D. Appleton-Century Company, 1928), p. 113.

¹¹ In one comprehensive reference, conflicting reports of the number of slaves were listed in adjacent tables. For the year 1820, for example, one table listed 24,282 slaves, while the next table listed 20,582, a difference of nearly 18 per cent. No explanation was given for the variations. See: Charles Shephard, An Historical Account of the Island of St. Vincent (London, 1831), Appendix, Nos. IV and V, pp. iv-v.

¹² For the various sources of these population estimates, see: Coke, History of the West Indies, p. 184; and Shephard, Account of St. Vincent, p. iv.

¹³ Niddrie, "Eighteenth-Century Settlement," pp. 77-78.

¹⁴ Shephard, Account of St. Vincent, Appendix, No. IV, p. iv.

¹⁵ Roberts, Jamaica, p. 37.

¹⁶ It should be noted that the population estimates listed by the author exclude the Carib Indians in the total population size because their contributions to the functioning of the island's economy were usually insignificant, especially after the mass deportation of 5,000 Caribs in 1797 cleared St. Vincent of all but a few hundred.

¹⁷ Ragatz, Fall of the Planter Class, p. 223.

18. The average annual importation of slaves was derived from the figures given by Shephard, Account of St. Vincent, Appendix, No. IV, p. iv, and those published in West Indian Census, 1946: Part H: "Census of the Windward Islands, 9th April, 1946" (Kingston, Jamaica: The Government Printer, 1950), Table F, p. xiii. Noel Deerr, The History of Sugar (2 vols., London: Chapman and Hall, Ltd., 1949), II, p. 279, records 1,540 slaves disembarked in St. Vincent in the year 1802-1803.

19. W. K. Marshall, "Social and Economic Problems in the Windward Islands, 1838-65," in The Caribbean in Transition, F. M. Andic and T. G. Mathews, (eds.), Second Caribbean Scholars Conference, Mona, Jamaica, April 14-19, 1964 (Rio Piedras, P. R.: University of Puerto Rico for the Institute of Caribbean Studies, 1965), p. 251.

20. Roberts, Jamaica, p. 41.

21. For a discussion of the early post-emancipation labor shortages, see Chapter IV in this study.

22. Donald J. Bogue, Principles of Demography (New York: John Wiley & Sons, Inc., 1969), Table 2-2, p. 36.

23. Ibid.

24. Ibid.

25. The Colony of St. Vincent, Blue Book, 1854, pp. 150-151. [Hereafter this source will be cited as Blue Book, followed by the appropriate year.]

26. Author's calculations made from population totals in Roberts, Jamaica, Appendix I, pp. 330-331.

27. R. W. Beachey, The British West Indies Sugar Industry in the Late 19th Century (Oxford: Basil, Blackwell, 1957), p. 44.

28. The number of consecrated burials for 1854 was between 975 and 1,116. The record of burials may have included a double counting of burials listed by religious denomination, giving the larger number. As many victims were buried quickly without the benefit of clergy, the exact toll of the disease cannot be determined. See: Blue Book, 1854, pp. 150-151. It has also been reported that a yellow fever epidemic occurred in 1852, but no indication was given in the blue book reports

for that year. See: Joycelin Byrne, "Population Growth in St. Vincent," Social and Economic Studies, XVIII, No. 2 (June, 1969), p. 152.

²⁹ Of the 23 estates sold under the West Indian Encumbered Estates Act, 14 were sold in this inter-censal period. For a further discussion of this Act, see Chapter IV in this study.

³⁰ The St. Vincent Government Gazette, 1871, p. 214.
[Hereafter this reference will be cited as Government Gazette, with the appropriate year following it.]

³¹ This was determined from the Harbor Master's reports published briefly between 1874 and 1879 in the Government Gazettes for those years.

³² Christian I. Martin, "The Role of Government in the Agricultural Development of St. Vincent" (Master's thesis, Faculty of Agriculture, University of the West Indies, Trinidad, 1967), p. 117.

³³ Undoubtedly, the havoc of the hurricane of 1898 so depleted governmental funds that there was little money or inclination to undertake a census enumeration.

³⁴ Government Gazette, 1917, p. 149, and Government Gazette, 1921, p. 291.

³⁵ For a detailed analysis of these two industries, see Chapter V in this study.

³⁶ Imperial Department of Agriculture for the West Indies, Report on the Agricultural Department, St. Vincent, for the Year 1925 (Port-of-Spain, Trinidad: Imperial Commissioner of Agriculture for the West Indies, 1926), p. 20 [Hereafter this reference will be cited as Report on the Agricultural Department, with the appropriate year designated.]

³⁷ For an indication of the destinations of Vincentians, see: Report of the Registrar-General on the Vital Statistics of the Colony for the Year 1925 (Kingstown: Government Printing Office, 1926), Table II, p. 12.

³⁸ Malaria in St. Vincent, for example, declined from 26 reported cases in 1905 to 10 in 1925, then to 0 in 1955. See: Report of the Registrar-General on the Vital Statistics of the Colony for the Year 1904-05 (Kingstown: Government Printing Office, 1905), Table 5, n.p.; Ibid., 1925, Table 8, p. 8; and Ibid., 1955, Table 7, p. 9.

³⁹ Bogue, Principles of Demography, Table 2-2, p. 36.

⁴⁰ There are many references in the Government Gazettes during the 1930s indicating how countries such as Cuba, British Guiana, and the Dominican Republic opposed the immigration of alien workers by requiring head taxes or deposits to be paid upon entrance. This not only deterred many potential migrants from entering these countries but also served to pay for the repatriation of a migrant who could find no work or became destitute.

⁴¹ Bogue, Principles of Demography, p. 808.

⁴² Donald J. Bogue, "Internal Migration," in The Study of Population: An Inventory and Appraisal, ed. by Philip M. Hauser and Otis Dudley Duncan (Chicago: University of Chicago Press, 1959), p. 502.

⁴³ Government Gazette, 1927, p. 7.

⁴⁴ For discussion of the wartime effects on the Vincentian economy, see Chapter V in this study.

⁴⁵ Report on the Agricultural Department, 1942, p. 2. It was reported that the main destinations for Vincentians were Trinidad and Aruba and Curaçao in the Netherlands Antilles. See: Report on the Agricultural Department, 1943, p. 2.

⁴⁶ Kuczynski, Demographic Survey, unnumbered table, p. 2.

⁴⁷ Report on the Agricultural Department, 1944, p. 3.

⁴⁸ West India Royal Commission Report [for 1938-1939], Walter Edward, Baron Moyne, Chairman (London: His Majesty's Stationery Office, 1945), pp. 434-436.

⁴⁹ The Child-Woman Ratio is not a direct indicator of actual births, but deals only with the survivors born in the previous 5-year period. Its value is as a relative, not an absolute, measure of fertility. See: George W. Barclay, Techniques of Population Analysis (New York: John Wiley & Sons, Inc., 1958), p. 172.

⁵⁰ Edwin P. Reubens, Migration and Development in the West Indies, Studies in Federal Economics, No. 3 (Mona, Jamaica: Institute of Social and Economic Research, University College of the West Indies [1961]), Table II-14, p. 38. A survey of 400 Vincentian emigrants, between June, 1959 and September,

1960, revealed that 55 per cent were 15 to 30 years of age.

⁵¹The vital statistics reports for these years were not available in St. Vincent. Therefore, the pattern of migration for these years must be interpolated by other means. It is known that considerable migration to Trinidad occurred at the beginning and the end of the censal period 1946 to 1960, and St. Vincent was an important contributor to this movement. See: Jack Harewood, "Population Growth of Trinidad and Tobago in the Twentieth Century," Research Papers, Trinidad and Tobago Central Statistical Office, No. 4 (December, 1967), p. 72.

⁵²The first Federation elections were held in April, 1958, and the referendum in Jamaica resulting in that country's withdrawal from the Federation of the West Indies occurred in September, 1961.

⁵³Reubens, Migration and Development, p. 3. Migration to Trinidad slackened considerably after the Government of Trinidad tightened its immigration policy governing the employment of foreign workers. See: Ibid., p. 32.

⁵⁴Female migration became more evident as the rate of net emigration increased. In 1946, the sex ratio of registered emigrants from St. Vincent was 152 males per 100 females, and by 1955, the ratio had decreased to 134. In the same years, the sex ratio of registered immigrants to St. Vincent declined from 171 to 143. See: Registrar-General's Report, St. Vincent, 1955 (Kingstown: Government Printing Office, 1957), Table 15, p. 16.

⁵⁵Bogue, Principles of Demography, Table 2-2, p. 36.

⁵⁶Glenn T. Trewartha, A Geography of Population: World Patterns (New York: John Wiley & Sons, Inc., 1969), pp. 72-74.

⁵⁷The population data showing the number of slaves and apprentices in St. Vincent are taken from a partially destroyed book discovered by and now in the personal possession of Dr. I. A. E. Kirby, Chief Veterinary Officer in the St. Vincent Department of Agriculture. This book is hereafter referred to as Estates Book. The precise location of the sugar estates, many of which were nearly lost to history before Dr. Kirby meticulously and painstakingly sought out each estate listed in various historical references concerning St. Vincent, were taken from the master sugar estate map (scale, 1:25,000) compiled by Kirby.

⁵⁸ There are no surviving census maps before 1946, thus the only feasible way to determine population distribution is by using sugar estate slave distributions. Population enumeration districts before 1946 were too gross to allow a precise examination of the spread of population—most enumeration districts were on a parish basis or police district basis, both of which result in overly generalized patterns.

⁵⁹ For 1825, one reference listed a total of 1,301 whites and 2,824 "coloured" [sic]. See: Shephard, Account of St. Vincent, Appendix, No. IV, p. iv. This total combined with the 20,102 slaves listed in the Estates Book results in a total population of 24,277 in 1825 of which 83 per cent were slaves. See: Estates Book, p. 241. According to the estimates for 1825 given in the census of 1946, there were 23,780 slaves out of a total population of 27,905, which amounts to 85 per cent of the colony's population. See: West Indian Census, 1946, Part H: "Census of the Windward Islands, 9th April, 1946," Table F, p. xlii. In either case, the population estimates must be considered approximate, thus it is assumed that an overwhelming proportion of St. Vincent's population before emancipation was composed of black slaves.

⁶⁰ For example, the two largest estates on the Windward coast, in 1833, were Grand Sable (693 slaves) and Union (560 slaves). The two largest estates on the Leeward coast, north of St. George Parish, were Richmond (326 slaves) and Rutland Vale (227 slaves). See: Estates Book, passim.

⁶¹ Ibid.

⁶² Ibid. The largest single estate in St. George Parish was Arnos Vale (east of Kingstown and now the site of the island's airport), with 283 slaves.

⁶³ The illegal encroachment upon Crown Lands (generally considered to be the interior of the island) was confined to charcoal burning and the temporary cultivation of provision grounds in the mountain lands of St. George Parish. See: Blue Book 1856, p. 249.

⁶⁴ Many of the island's East Indian descendants became small farmers after their indentures expired. They purchased land from the many small estates in the Marriagua Valley and near the town of Calliaqua. See Figure 12 for a map showing the distribution of East Indian immigrants between 1861 and 1880.

⁶⁵ Government Gazette, 1912, p. 249.

⁶⁶ The census statistics for the years 1844, 1851, and 1861 were given on a parish basis. For 1871, the population enumeration districts were re-drawn in such a way as to preclude the comparison of earlier censuses, as the 5 parishes in the main island were divided into 4 census districts with a separate unit added for the Grenadines. The census of 1881 used the same census districts as those in 1871, but set aside the town of Kingstown as a separate unit. In 1891, the census districts coincided with "police districts" and were collapsed into 4 major units. For the censuses of 1911, 1921, and 1931, census districts were re-drawn so that there were 6 districts (5 in 1911 as the Grenadines were added to that of the town of Kingstown). The census of 1946 used the same major enumeration districts but changed their names. There were, in addition, 13 sub-districts created. The 1960 census followed the districts and sub-districts of 1946, with only slight variations in boundaries. (See Figure 40.)

⁶⁷ Trewartha, Geography of Population, p. 72.

⁶⁸ United Nations, Demographic Yearbook, 1968 (New York: United Nations, 1969), Table 2, pp. 89-90.

⁶⁹ One of the leading demographic statisticians of the West Indies has commented on the high densities found in Barbados and the accompanying employment problems. See: Jack Harewood, "Overpopulation and Underemployment in the West Indies," International Labour Review, LXXXII, No. 2 (August, 1960), p. 110.

⁷⁰ When the Grenadine dependencies are included in the area below 1,000 feet, the population density for St. Vincent increases from 40 per cent of Barbados's density in 1844 to 65 per cent of the density in 1960.

⁷¹ The "real" density of population calculated by the author corresponds closely with the "nutritional density" or "physiological density," that is, the more meaningful ratio of total population to arable land. See: Trewartha, Geography of Population, p. 74. The main island of St. Vincent has approximately 48,886 acres of land considered arable. See: J. P. Watson, J. Spector, and T. A. Jones, Soil and Land-Use Surveys, No. 3, St. Vincent (Port-of-Spain, Trinidad: The Regional Research Centre, The Imperial College of Tropical Agriculture, 1958), p. 10. The author's measurements show that 47,834 acres (74.74 square miles) in the "main" island

of St. Vincent are below 1,000 feet in elevation. One conclusion is, therefore, that the land below the 1,000-foot contour line has been the reservoir of arable land in the colony. The "real" density determined by the author is, in effect, the same as the "nutritional" or "physiological" density described by Trewartha. The revised density figures for St. Vincent would have been even greater had the area below 1,000 feet in the northern part of St. David Parish been eliminated. For the sake of internal consistency, however, the area considered inhabitable was confined to all land below 1,000 feet in elevation.

⁷² Barbados is a relatively flat, low-lying limestone island with its highest point only 1,100 feet above sea level. Its suitability for cultivation, especially for sugar cane, is evidenced by the fact that about 85 per cent of the total area of the island is under cultivation. See: Preston E. James, Latin America (4th ed.; New York: The Odyssey Press, 1969), p. 320. On the other hand, about 57 per cent of the total area of St. Vincent's main island is cultivable. See: Watson, Spector, and Jones, Soil and Land-Use Surveys, p. 10.

⁷³ Population densities have been calculated for 1844, 1851, and 1861 as these were the only years when parishes were used as census districts.

⁷⁴ As early as 1874, it was reported that periodic large emigration to Trinidad occurred, with migrants moving southward on uncounted sloops for the Grenadines. See: Government Gazette, 1874, p.30.

CHAPTER VII

THE COMPOSITION OF POPULATION IN ST. VINCENT

After the past economic cycles in St. Vincent and the corresponding eras of change in the dynamic components of population growth have been recognized, it is possible to analyze the composition of the population in order to determine how demographic characteristics have been affected by fluctuations in births, deaths, and migration. Changes in fertility have had their effect on the youthful cohorts of the population while mortality fluctuations have affected all ages. The most obvious thread in the population pattern, however, has been the considerable impact of migration into and out of St. Vincent. The island's strong dependence upon a monocultural cash crop regime has forced the economy to adapt itself to exogenous economic impulses, which, in turn, has led to the creation of large migration streams that have left their mark on the population structure.

It is possible to perceive in some measure the economic and social past of the island by observing, for example, the age, sex, and racial composition of the population at different times over the past 200 years. By sequential analysis, an insight is provided into the probable effects of the frequent and violent economic wrenchings that have plagued St. Vincent for nearly two centuries.

This chapter will describe and analyze the basic characteristics of the population structure as they have varied over space and time. Limitations in the data preclude a complete and comprehensive description between 1763 and 1960, necessitating a focus on the censal period beginning in 1861. The ideal of detailed and cross-classified censuses is found, unfortunately, only with the enumerations taken in 1946 and 1960. Intra-island comparisons of population data are possible from 1861 to 1960 for but a few demographic variables, but they tend to be generalized and oftentimes speculative as to meanings and definitions. In fact, most 19th century censuses failed to publish useful detailed census reports or administrative procedures.

The primary characteristics examined in this chapter will be the "ascribed" or biological characteristics: (1) age; (2) sex; and (3) race. In addition, there will be a discussion of the rural-urban continuum as applied to St. Vincent.¹ Finally, there will be an analysis of the changes observed in the occupational status of the population. The purpose of this chapter is thus the demonstration of the effects of two centuries of population change; the effects are obvious but the causes must be sought out through an understanding of historical geography.

The Age Structure

The age structure (composition) of a country is a basic demographic component in the analysis of population change. Its socio-economic structure is reflected in the distribution of persons by age groups. The youthfulness of St. Vincent's population

is readily apparent from an inspection of a proportional array of age groups.

The validity of the historical complaint by estate owners of labor shortages is confirmed by the "abnormal" under-representation of the working age population revealed by age statistics. As will be shown below, a definite pattern of age structure emerges from a study of the past population profiles. This age structure pattern, which economically developed countries such as the United States might consider "abnormal" or "unrepresentative," has been the "normal" situation for St. Vincent.

The Age Composition of St. Vincent

Satisfactory analysis of St. Vincent's changing age structure is restricted by the nature of the early statistics. Published population data for the slave era and the first quarter of a century following the emancipation of the slaves did not include a breakdown of population by age. It was only with the census of 1861 that age was first reported and cross-classified by sex and census district. Age statistics were reported by broad age groups which make an accurate assessment of reliability and validity difficult for the years before 1946.² Nevertheless it is possible to observe some of the factors that have influenced the age composition of St. Vincent's population.

A comparison of age structure from 1861 to 1960 reveals the impact of both migration and fertility over the century. By 1861, the island had fully absorbed the Portuguese Madeiran immigrations of the preceding 20 years and was just beginning to receive the inflow of East Indians. Between 1861 and 1881, the

age groups under 20 years maintained about the same percentage distribution. (See Table 19.) A noticeable difference occurred in the age group 20-29 years in 1881, when the numbers declined 3 per cent, and in 1891, when there was a further decline of 2 per cent. These census years marked the end of foreign labor immigration and the beginning of steady native emigration as the sugar industry suffered the depression brought on by competition from European beet sugar. By 1921, there was a decline in the percentage of population aged 30-49 years, which included those who were near the upper age limit for migration.

The steady increase in the proportion of population aged 0-9 years from 1871 to 1891 indicated the impact of the withdrawal of persons of potential migration age (15 through 35 or 40 years). The unexpectedly low concentrations of children under 10 years of age between 1911 and 1931 is probably the result of misstatements of age by respondents or census enumerators. (See Figure 41.) None of the archives in St. Vincent allude to any historical events that could possibly have reduced the number of children; in fact, the opposite should be expected, as fertility was incipient during the 1920s.³ The subsequent rapid expansion in fertility is evidenced by the large size of the cohort of children in 1946 and 1960. Emigration during the Second World War and the late 1950s accounted for the decrease in the age group 20-29 years. (See Table 19 and Figure 41.)

It is axiomatic in demographic analysis that approximately 35 per cent of any population falls in the interval 20 to 44

TABLE 19

TOTAL AGE PROFILE, MALE AND FEMALE COMBINED,
BY 10-YEAR AGE GROUPS, ST. VINCENT,
1861-1960

Age Group	1861 (%)	1871 (%)	1881 (%)	1891 (%)	1911 (%)	1921 (%)	1931 (%)	1946 (%)	1960 (%)
0-9	28	27	29	30	22	26	24	31	36
10-19	23	22	22	24	27	26	26	24	22
20-29	19	20	17	15	18	18	18	15	13
30-39	12	12	12	11	10	9	11	11	9
40-49	9	8	9	9	8	7	8	8	8
50-59	5	5	5	5	6	6	6	5	6
60+	5	5	6	5	9	8	8	7	7
Total	100	100	100	100	100	100	100	100	100

Source: Author's calculations.

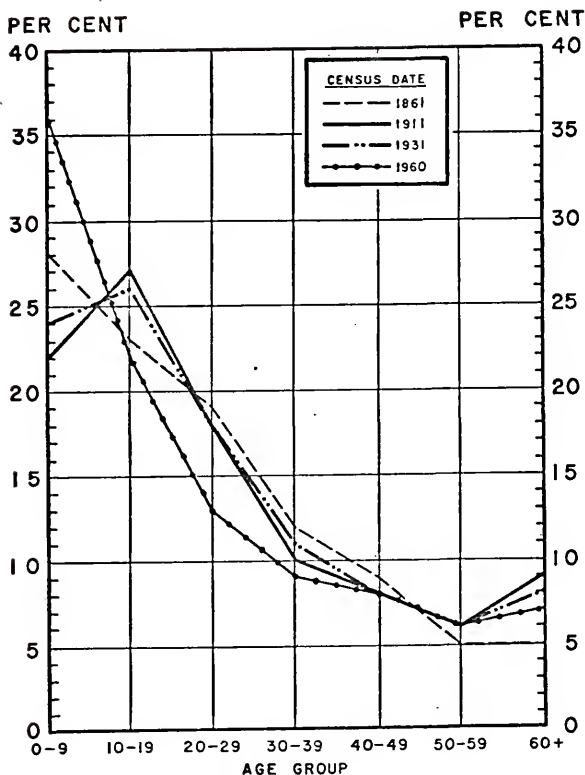


FIGURE 41

AGE PROFILE, BY 10-YEAR AGE GROUPS,
ST. VINCENT, FOR SELECTED CENSUS
DATES, 1861-1960

years of age regardless of the proportion of the population at the extremes of the life cycle.⁴ For St. Vincent, a comparable interval of 20 to 49 years of age (the only age interval that can be traced back as far as 1861) reveals a change in proportion from a maximum of 40 per cent in 1861 to a minimum of 30 per cent in 1960, the result of the heavy emigration during the Second World War and the years encompassing the abortive move toward federation in the British West Indies in the late 1950s.

The Age Structure, By Sex, for St. Vincent

A more effective approach to assessing the impact on the structure of population by the vital events and migration is a comparison of age groups by sex, by which the age and sex groups most affected by fluctuations in the demographic variables can be readily observed. For a long-term analysis, the age and sex structures have been graphed by 10-year age intervals for the period 1861 to 1960.⁵ (See Figure 42.) The most striking conclusion to be derived from these distributions (converted to index numbers based on the population profile in 1861) is the importance of migration, especially during the 20th century. The growing emigration of Vincentian males between 1871 and 1891 is reflected in lower index values for the prime migration ages (20 through 39 years). The withdrawal of these people from the total population boosted the proportional representation of children (0-9 years) and the elderly (60 years and older).⁶

As emigration increased after the demise of the Vincentian sugar industry, the age selectivity of migration became more

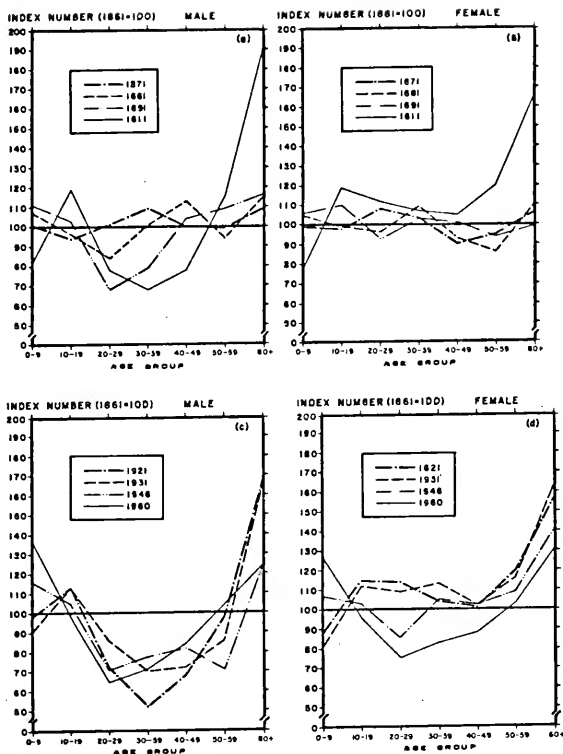


FIGURE 42
INDEX NUMBERS OF AGE-SEX PROFILES,
ST. VINCENT, 1861-1960 (1861=100)

apparent. Distortions of the age distribution increased after 1891, particularly between 1911 and 1921. The latter census year recorded the greatest deviation from the age and sex profile of 1861, which was most obvious at the age group 30-39 years. In part, this indicates the normal aging of early cohorts of emigrants whose absence in 1921 is measured by an index number one-half of its corresponding value in 1861. (See Figure 42a and 42c.) The fluctuations of index numbers for the age group 0-9 years should be cautiously interpreted, for these data, at least for the first 30 years of the 20th century, are very likely inaccurate.⁷

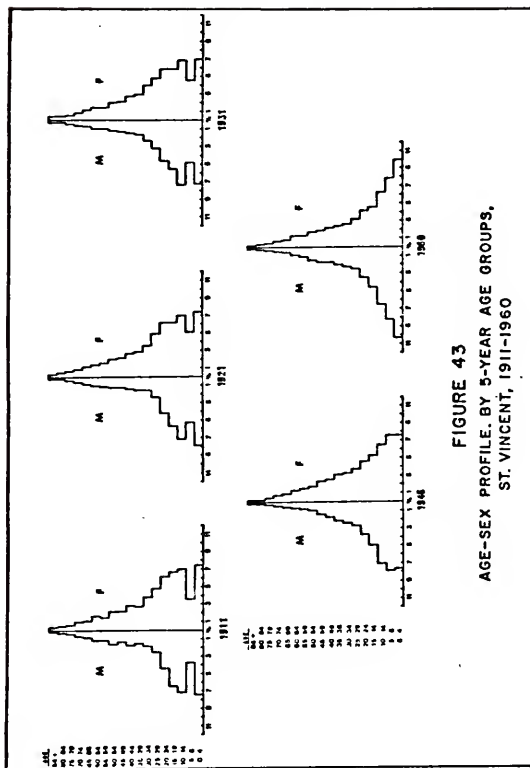
The ages for male emigrants were between 20 and 49 years, although those who left usually did so at the lower end of this age span. Their continued absence, for there were those who opted to stay away permanently, reduced the proportion of their age group in the total population at later censuses. The greatest deviation from the base year profile in 1861 was for those aged 60 years and older in 1911.⁸ (See Figure 42c.)

Female Vincentians figured much less prominently in emigration streams during the 19th and early part of the 20 centuries. (See Figure 42b and 42d.) There was only a slight deviation from the 1861 base year profile during the late 1800s for the female age groups. The heavy male losses after 1891, however, expanded female representation at all age groups above the age of 9 years during the first 30 years of the 20th century. A pattern of female emigration emerged as a result of the Second World War, especially for women aged 20-29 years. (See Figure 42d.) In response to the previous high male exodus (which left a preponderance

of females in St. Vincent), and the greater willingness of women to seek their fortune outside of the island, the number of female migrants increased rapidly during the late 1950s. Many migrated to Trinidad and Tobago at the time of the Federation of the West Indies (1958) and later to the United Kingdom (when the Federation collapsed in 1962) in hopes of locating, joining their mates, or finding employment.⁹

As already indicated (vide supra page 3), the "abnormal" was the norm for St. Vincent's population structure over most of the century after 1861. The high losses of males from emigration established a pattern of abnormally low representations of men in the prime ages for work and reproduction. Notwithstanding such large male migration streams, Vincentian women managed, however, to reproduce at a record rate after 1931. By 1960, St. Vincent ranked 14th in the world in its general fertility rate (the number of births occurring in a year per 1,000 women of child-bearing age). This phenomenon lends support to the idea that the "abnormal" was institutionalized as the normal in much of the country's demographic history. Similarly, two sister islands in the British West Indies—St. Kitts and Dominica—also ranked in the top 15 of the world in level of general fertility rate.¹⁰

A closer examination of the age and sex pyramids (by 5-year age groups) for St. Vincent's population for the censal years 1911 through 1960 indicates how characteristically narrow the age groups were above the age of 15 years.¹¹ (See Figure 43.)



The indentation at the 5-9 year age group for the censuses of 1911 through 1931 points up an unaccountable error, for no extraordinary events occurred in these years that would affect this age group alone. Had there been disrupting events, the effect would have been carried through at succeeding censuses, which was not so.

Above the youth category (0-14 years of age), there was a noticeable constriction of the age groups, especially among working-age males. (See Figure 43.) Between 30 and 60 years of age, the population pyramids for 1911 and 1921 show a nearly vertical face—dramatic proof of the consequences of past emigration by males. For these two censuses, the female cohorts show the more commonly expected stair-step decrease with advancing age. By the end of the first quarter of the 20th century, female emigration had not been as depleting as that of male departures.

The incipient growth in fertility, the decline in mortality, and the restrictions to free movement in the Caribbean region after 1921 are revealed by the age and sex profile for 1931. A broadening of the age groups above 20 years of age occurred and increased throughout the 1930s. (See Figure 43.) The disruptions occasioned by the Second World War are partially hidden because of the omission of a census in 1941, which might have recorded the changes subsequent to the United Kingdom's entry into the European war. By 1946, the effect of the increased fertility of the late 1930s was visible. The pyramidal shape is more pronounced, although the male cohorts at the adult age groups are still smaller than the corresponding female age groups.

The 1960 age and sex profile reveals how much fertility had increased. St. Vincent had assumed a more classical pyramidal shape characteristic of economically and socially underdeveloped countries—an extremely broad base, relatively balanced by sex under the age of 15 years. (See Figure 43.) For the ages 15 years and older, however, past migrations left more females than males.

In order to obtain a more precise picture of the age distribution after the Second World War, a profile of the population broken down by single years has been constructed for the censuses of 1946 and 1960 only, since previous censuses failed to provide the valuable details inherent in such age distribution collations. A noticeable trait in both the 1946 and 1960 single-year population pyramids is the unevenness of age reporting. (See Figure 44.) The most preferred digit for reporting age in 1946 was 0 for both sexes; that is, most of the error in the age statistics was centered in the ages 10, 20, 30, and so forth. For males, the second most-commonly-preferred digit was 5 (15, 25, 35, and so forth), while for females, it was 8, followed by 5.¹² In 1960, males preferred 0 and 2 as the digits representing their ages, while females reported their ages by years ending in 0 and 8.¹³

As a result of emigration during the middle years of the Second World War, the 1946 age and sex pyramid showed an expected decrease in the proportion of the population aged 2 years and 3 years old. (See Figure 44.) According to this pyramid, the world economic depression of the 1930s had relatively little effect on fertility in St. Vincent. Most western nations which suffered economic distress in the 1930s had concomitant decreases

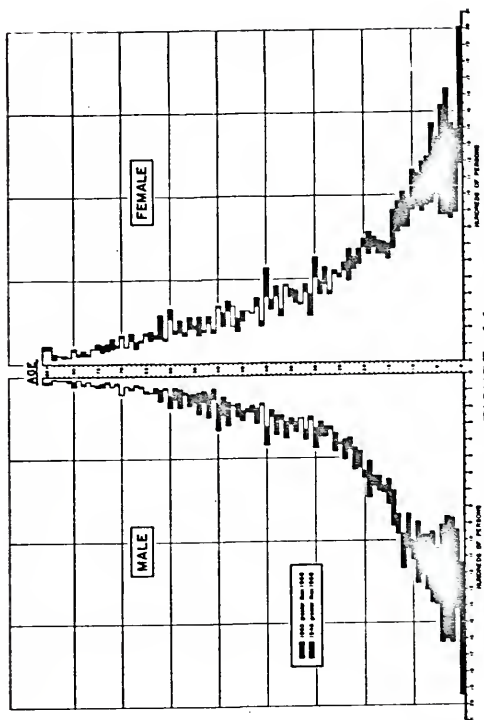


FIGURE 44
AGE-SEX PROFILE, ST. VINCENT, 1946 AND 1960

in fertility that appeared in population profiles as distortions in the form of contractions of the infant age groups. St. Vincent reveals few, if any, such effects, as its fertility was in fact increasing after 1931.

The single-year population profile for 1960 reveals the effects of rapidly expanded reproduction after 1946. The base of the pyramid reached its maximum extent in 1960, as the number of births, combined with the heavy emigration in the late 1950s, inflated the proportion of age groups under 15 years. (See Figure 44.) It is clear that the population of St. Vincent was heavily weighted toward females at all ages above the youth category.

According to the abridged life table for St. Vincent (1950 to 1952), males should have theoretically exceeded the number of females at all 5-year age groups through the age of 50 years.¹⁴ Above 50 years, females should have been in the majority as their mortality was increasingly more favorable. The 1946 age and sex profile, however, shows fewer males than females at all ages above 15 years. From the life table constructed for the years 1959 to 1961, it is evident that males should have exceeded females through the age of 56 years, but the 1960 population pyramid likewise shows a female majority for all ages past 15 years.¹⁵

For the island as a whole, it has been demonstrated by inspection of the population profiles between 1861 and 1960 that heavy emigration of males, especially after 1891, reduced the sex ratio at all adult ages and more or less maintained this imbalance up to the 1960 census.

Intra-Island Variations in Age and Sex Structure

A treatment of comprehensive island-wide statistics fails to indicate whether there are marked differences between one part of St. Vincent and another. By agglomerating ages into 10-year groups, it is possible to analyze a century of age and sex profiles for different parts of St. Vincent, starting with the first comprehensive census in 1861.¹⁶ (See Figures 45 through 53.) It should be understood, however, that the resultant patterns of variations are general because of the broad age groups that must be used. Nevertheless, it is instructive to fit the known facts of the time to the observed variations. The time-series comparisons are best reduced to broad time periods, encompassing events peculiar to the individual census dates.

1861 to 1881.—The censuses of 1861 through 1881 recorded the effects of the bulk of St. Vincent's post-emancipation immigration, which included the importation of indentured Portuguese Madeirans, "liberated" Africans, and East Indian "coolies." Most of the alien laborers served out their indentures on Windward coast sugar estates in Charlotte Parish, especially in the "Carib Country."¹⁷ The population pyramids for the entire colony over these years show relatively little change, but variety among the census districts is apparent, particularly for the town of Kingstown and the Grenadine dependencies. (See Figures 45 through 47.)

In the Kingstown Census District, the age and sex profile, even at this early date (1861), revealed the consequences of internal migration. Being the only major shipping port and the capital of the colony, it attracted young adults, usually female.

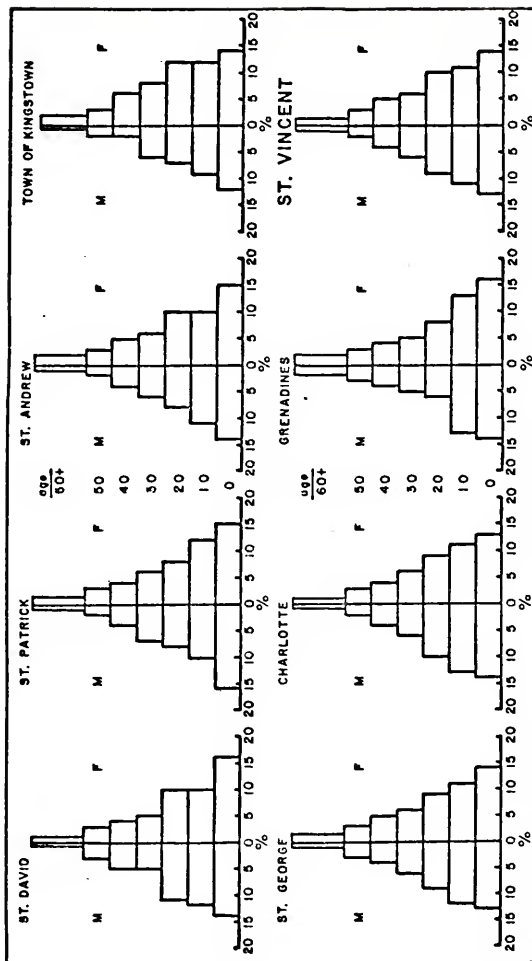
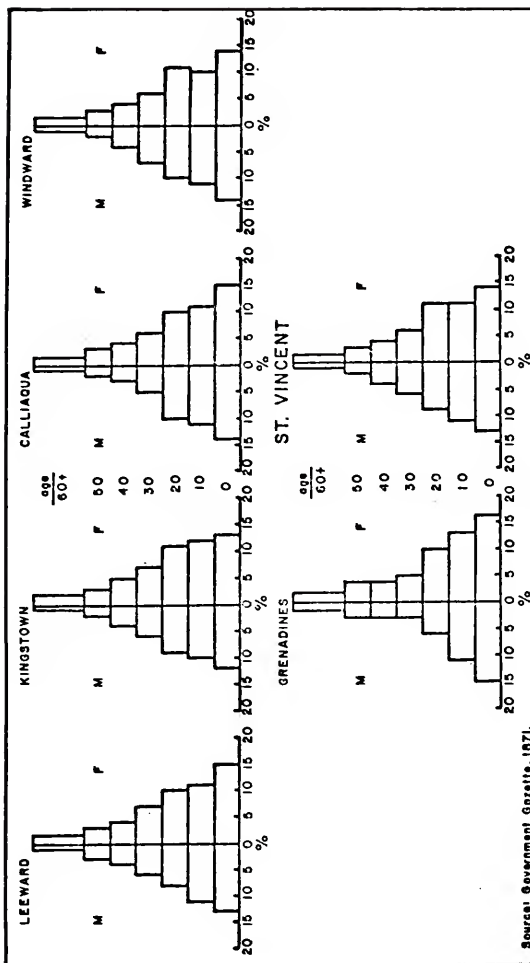


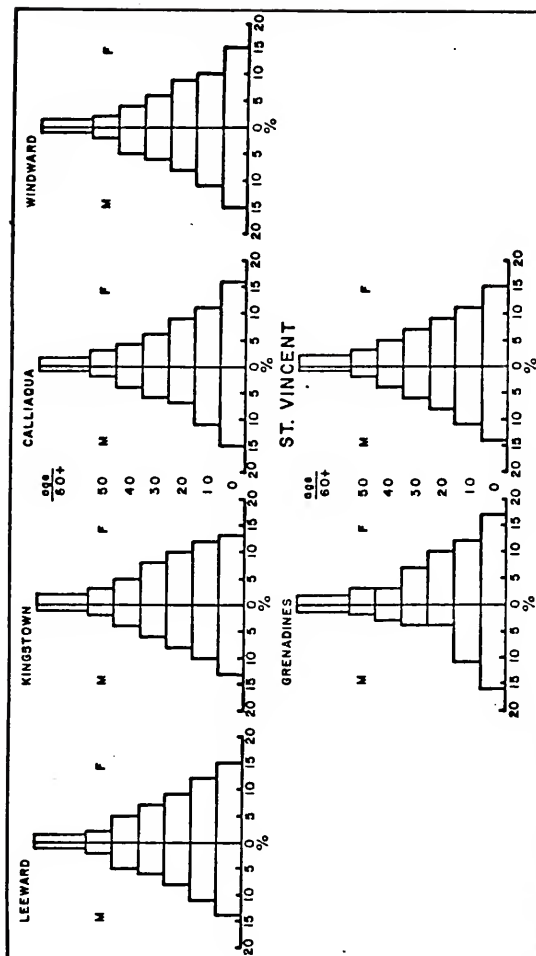
FIGURE 45
AGE-SEX PROFILE, BY CENSUS DISTRICT, ST. VINCENT, 1861

Source: ST. Vincent, Census, 1891.



Source: *Government Gazette, 1871.*

FIGURE 46
AGE-SEX PROFILE, BY CENSUS DISTRICT, ST. VINCENT, 1871



Source: St. Vincent, Census, 1881.

FIGURE 47
AGE-SEX PROFILE, BY CENSUS DISTRICT, ST. VINCENT, 1881

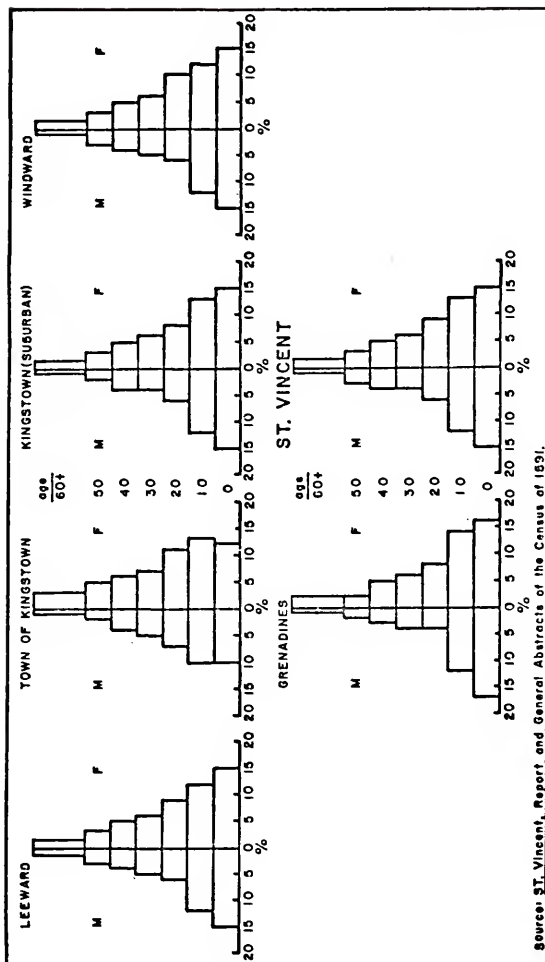
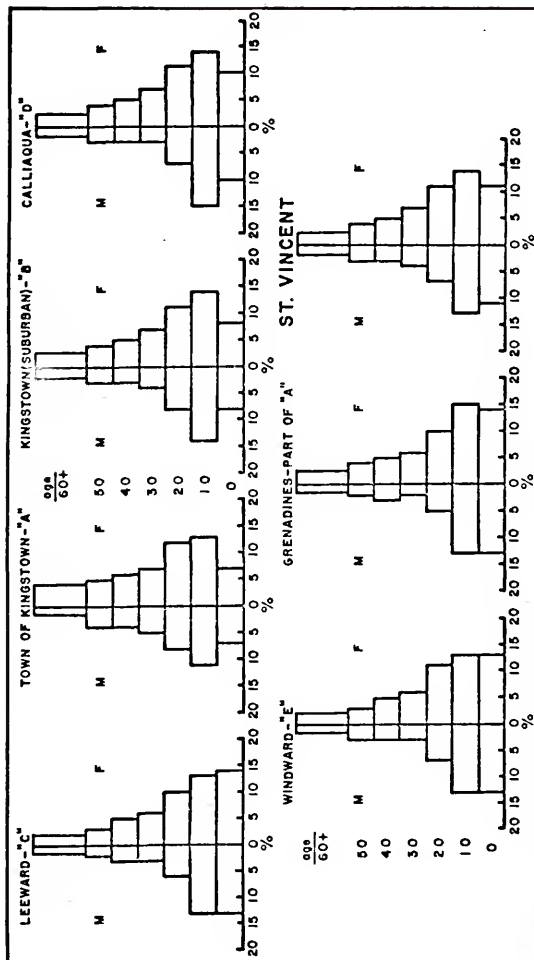
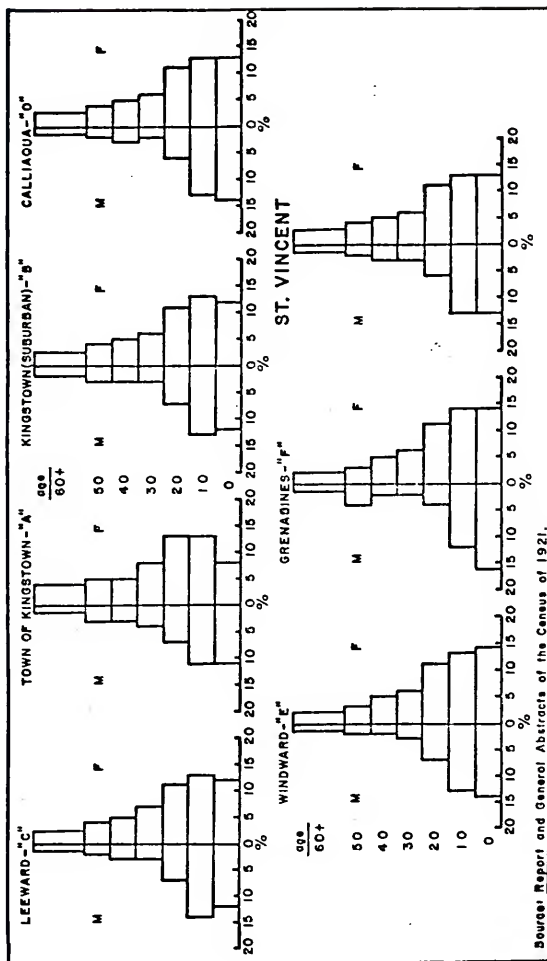


FIGURE 48
AGE-SEX PROFILE, BY CENSUS DISTRICT, ST. VINCENT, 1891



Source: Report of the Census of St. Vincent, 1911.

FIGURE 49
AGE-SEX PROFILE, BY CENSUS DISTRICT, ST. VINCENT, 1911



Source: Report and General Abstracts of the Census of 1921.

FIGURE 50
AGE-SEX PROFILE, BY CENSUS DISTRICT, ST. VINCENT, 1921

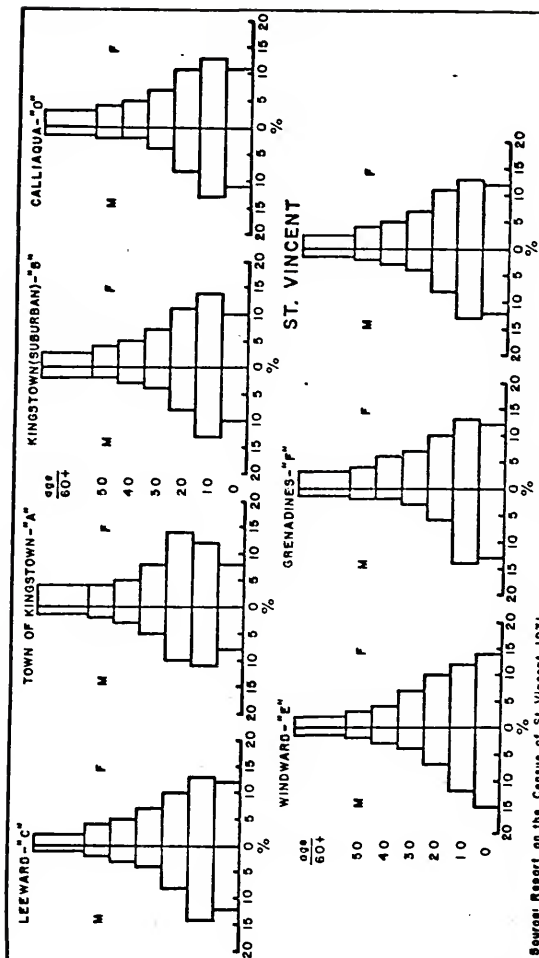


FIGURE 51
AGE-SEX PROFILE, BY CENSUS DISTRICT, ST. VINCENT, 1931

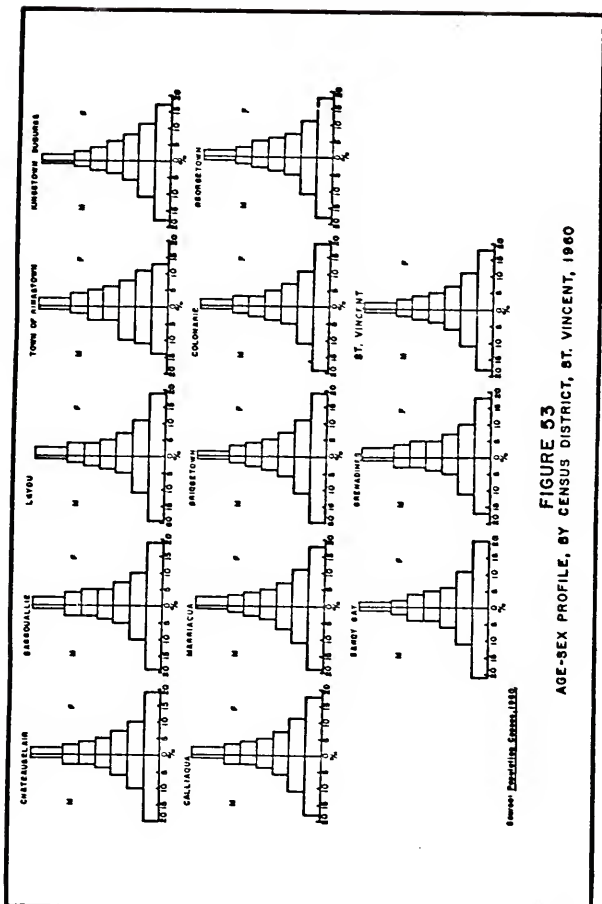


FIGURE 53
AGE-SEX PROFILE, BY CENSUS DISTRICT, ST. VINCENT, 1960

The age and sex selectivity of internal migration in St. Vincent followed an expected pattern, that is, young adults apparently moved more readily than older persons, and females dominated the migration within the "main" island to Kingstown. It has been generally accepted in the migration literature that "females tend to travel short distances, whereas males tend to constitute a disproportionately large part of the total long-distance migrants."¹⁸ The result of internal movement in St. Vincent can be inferred from the "bulging" of the young adult age groups, especially among the female population. Such a pattern is obvious in the population profiles for the censuses between 1861 and 1881. (See Figures 45 through 47.)

The preponderance of females in Kingstown may also be attributed to the losses of young males who left the island in international migration streams. The opposite characteristic among internal migrants should show up among international migrants who cross national boundaries in their movements — males should predominate as distance from the point of origin (St. Vincent) increases. Emigration, which started slowly during the 1860s, increased as the domestic sugar industry experienced reduced demand for its product in Europe in the 1870s and 1880s. As the capital was also the chief shipping point and hub of sea-borne transportation, it seems very likely that men who left St. Vincent probably lived in or near Kingstown prior to their departure, therefore, their subsequent absence would so act as to deflate the sex ratio among the working-age population.

Another noticeable feature of the Kingstown age and sex structure is the small proportion of children under 10 years of age, compared with the average profile for the colony. (See Figures 45 through 47.) The general concept concerning age composition in "urban" areas is that the rapid rural-to-urban migration of young adults, in combination with their relatively lower fertility, results in a population that has a "deficit" of children and a "surplus" of people of working age.¹⁹

In the Grenadines Census District to the south, the population profile changed very little from 1861 to the present day. In the period between 1861 and 1881, however, its age and sex distribution was the most affected of the island's census districts by emigration of males. (See Figures 45 through 47.) Between the ages of 10 and 49 years, there was a constant loss of men, revealed by the vertical age grouping of males. The typical age and sex profile should show a decreasing proportion of people at succeeding higher ages unless extraordinary events cause distortions to appear in the profile. The near equality of the percentage of males between the ages of 30 and 59 years in 1871 and 20 to 39 years in 1881 indicates heavy emigration that was highly selective of people in the working ages in the Grenadines. (See Figures 46 and 47.) Vincentians in the dependencies were usually very transitory in their working habits, especially in the cane harvesting season when they moved to Trinidad to cut cane. Many remained in Trinidad, consequently there was a low sex ratio in their home islands.²⁰

In the Windward Census District of the "main" island (encompassing most of Charlotte Parish), the age and sex composition shows a slight male predominance in the age group 30-39 years, for 1871. In the succeeding census, the male predominance had shifted to the next older age group, 40-49 years, as might be expected. This probably indicates the infusion of the East Indians during the period 1861 to 1880, and their concentration on the Windward sugar estates.

1891 to 1931.— The censuses from 1891 to 1931 encompassed one of the most critical periods in St. Vincent's history. This time interval spanned the years of massive emigration attendant upon the total collapse of the sugar industry, the destructive hurricane in 1898, and the eruption of the Soufrière volcano in 1902.

The population distribution by age and sex in 1891 clearly shows, for the first time, the heavy male losses from emigration. A very noticeable contraction of the male age groups between 20 and 49 years of age appeared in the colony's total profile. (See Figure 48.) Whereas in the previous censuses (before 1891), the enumeration districts farthest from Kingstown showed the least deformation in their profiles, by 1891, all parts of the colony evidenced losses of adult males. The indenture contracts had expired and without the influx of fresh labor, the adult male population diminished proportionately in size as native Vincentians and foreign-born East Indians, who had fulfilled their contracts and had opted for cash bounties in lieu of free passage to India, began shifting southward to Trinidad and British Guiana [now Guyana], some even moving to Venezuela in the early 1890s.²¹

The capital (the Kingstown Census District) continued to be a nodal point for both internal migrants (mainly females) and prospective international migrants (mainly males). The town's age and sex pyramid maintained a relatively narrow base, indicating the lower fertility of town life and the absence of male partners. (See Figure 48.) Females continued to outnumber males above the age of 10 years.

The Grenadines Census District, consistent in its transitory life style, retained a grossly unbalanced age and sex profile above the age of 20 years. (See Figure 48.)

Inspection of the age and sex pyramids for the censuses 1911 through 1931 shows that the average profile for St. Vincent has been affected by the misrepresentations of ages among children under 10 years. (See Figures 49 through 51.) No doubt the massive emigration between 1891 and 1911 affected fertility somewhat, but an unaccountably small number of both sexes was recorded at the age group 5-9 years. This error seems to have been confined to the southern census districts that included Kingstown, the surrounding environs, and most of St. George Parish to the east of the capital (called the Calliaqua Census District). (See Figure 49.)

If the age group 0-9 years is disregarded, then the contraction of male proportions for all of the census districts may be observed. More than ever, St. Vincent became a predominantly female society in the years between 1911 and 1921, when the female majority was at its peak. (See Figures 49 and 50.) By 1931, there was a gradual diminution in the obvious effects from emigration. The age and sex distribution for the colony became more "normal"

in its appearance. Females were still in the majority but this phenomenon was less noticeable than in 1911 and 1921. (See Figure 51.)

1946 to 1960.—Most of the distortions in the age and sex distributions between 1891 and 1931 were ameliorated by 1946. The population pyramids for 1946 and 1960 show more balance, that is, the bases widened as a result of the higher fertility after 1931. (See Figures 52 and 53.)

The enumeration districts for the Leeward, Windward, and southern regions in 1946 (Western, Eastern, and Southern Census Districts, respectively) showed profiles very similar to the average for the colony, while those of the Kingstown and the Grenadines Census Districts evidenced the greatest deviation from the colony's average. (See Figure 53.)

Each census district in the 1960 census was named for a major town or village, although these places were not "urban" enough in life style to influence the distribution of population in that direction. Only in the town of Kingstown did the abundance of females and the relative dearth of children under 10 years of age follow the expected pattern of an "urban" environment. This confirms the idea that Kingstown has been the only place that could be called "urban." The other towns and villages have been merely crossroad communities, nodal points on the island's main highway. The inhabitants in these places exhibit more "rural" than "urban" life styles, as many of them work their fields during the day and return to their village homes in the evening.

Variations in St. Vincent's Burden of Dependency

After a consideration of the broad fluctuations in St. Vincent's age and sex composition, it is logical to proceed to an understanding of the variations in the "working-age" segment of society. People who are "economically active" are usually the main providers for those who are either too young or too old to engage in full-time employment; therefore, as the proportion of one group changes so does the relative burden of economic dependence.

The conventional statistical measure used to determine the "burden of dependency" is the dependency ratio, which is a ratio of the population outside of the working ages to that inside the working ages. The "working ages" are set by universally accepted definitions, and for this study they are assumed to include the ages 15 through 64 years. The population younger than 15 years and older than 64 years of age is, by definition, called the "youth" and "old age" segments, respectively.²² Owing to the nature of the age reporting in the censuses before 1911, it is not possible to calculate dependency ratios before then.²³ Comparisons are therefore limited to the census dates 1911 through 1960.

Since 1911, there has been an upward trend in the burden of dependency for St. Vincent, with a slight decline registered in 1931. From a minimum in the 20th century of 72 "dependents" for each 100 persons of "working age" in 1911, the ratio increased to a record high of 115 by 1960. (See Table 20.) Youths accounted

for 86 per cent of the total dependency ratio in 1911, and with the upward surge of reproductive performance after 1931, this increased to 91 per cent by 1960. At the same time, old age dependency declined from 14 per cent of the total burden to 9 per cent. It is apparent that the increase in fertility has been most responsible for the added economic load borne by the working segment of society.

Intra-Island Variations in Dependency.— Differences in the burden of dependency within the island are socially and economically important to those having to provide a variety of public services to the population. Of the 5 major census regions in St. Vincent, those that encompass the southern part of the island (most of St. George Parish, including Kingstown) have shown the greatest relative increase in the level of dependency. The "Southern" Census District (east of Kingstown, extending to the border with Charlotte Parish) recorded a 91 per cent expansion in its dependency load, going from 66 in 1911 to a record high in the 20th century of 132 by 1960.²⁴ Of the total dependency burden for this region, the youth component grew by 103 per cent. (See Table 20.)

The second fastest growing region in the level of dependency was Kingstown and its suburban area. This region increased its dependency load from 55 to 102 dependents per 100 working-age people, between 1911 and 1960. Within the limits of the capital itself, dependency expanded from 49 to 80. (See Table 20.)

Throughout the Windward Census District, dependency increased by 56 per cent over the half-century after 1911— from 78 to 122. Natural increase was apparently slower in the Leeward Census District,

TABLE 20
DEPENDENCY RATIO, BY CENSUS DISTRICT,
ST. VINCENT, 1911-1960

Census District	Census Year				
	1911	1921	1931	1946	1960
<u>Colony of St. Vincent</u>					
Total Dependency Ratio	72	83	77	96	115
Youth Dependency Ratio	62	73	67	87	105
Old Age Dependency Ratio	10	10	10	9	10
<u>Windward</u>					
Total	78	87	92	97	122
Youth	69	78	83	90	113
Old Age	9	9	9	7	9
<u>Southern</u>					
Total	69	91	76	100	132
Youth	59	80	65	90	120
Old Age	10	11	11	10	12
<u>Kingstown</u>					
Total	55	73	61	85	102
Youth	44	61	51	75	94
Old Age	11	12	10	10	8
<u>Leeward</u>					
Total	86	78	79	108	121
Youth	77	69	70	94	112
Old Age	9	9	9	14	9
<u>Grenadines</u>					
Total	90	98	88	106	116
Youth	80	87	75	93	104
Old Age	10	11	13	13	12
<u>Town of Kingstown</u>					
Total	49	61	52	68	80
Youth	36	47	41	60	71
Old Age	13	14	11	8	9

Source: Author's calculations.

as total dependency increased by only 41 per cent—from 86 in 1911 to 121 in 1960. The slowest relative expansion in the burden of dependency occurred in the Grenadines Census District, where the ratio increased from 90 in 1911 to 116 in 1960. (See Table 20.)

In general, the proportion of dependent persons increased most rapidly in the areas closest to Kingstown. The outlying diatricts, although growing at a fast rate (on an international scale), increased their dependency burdens more slowly than the areas along the south coast, where heavy population concentrations developed.

The Sex Composition

A review of age and sex structures demonstrates that the population of St. Vincent remained a relatively "young" population over most of its history. In accounting for the rapid population growth after 1931, mainly the outcome of high fertility, the author has commented on the age distribution of those persons of reproductive age, with occasional references to the sex balance of age groups. This section will be concerned more specifically with the ratio of males to females (the sex ratio) in an attempt to explain how factors such as emigration have altered the working-age and old-age population.²⁵

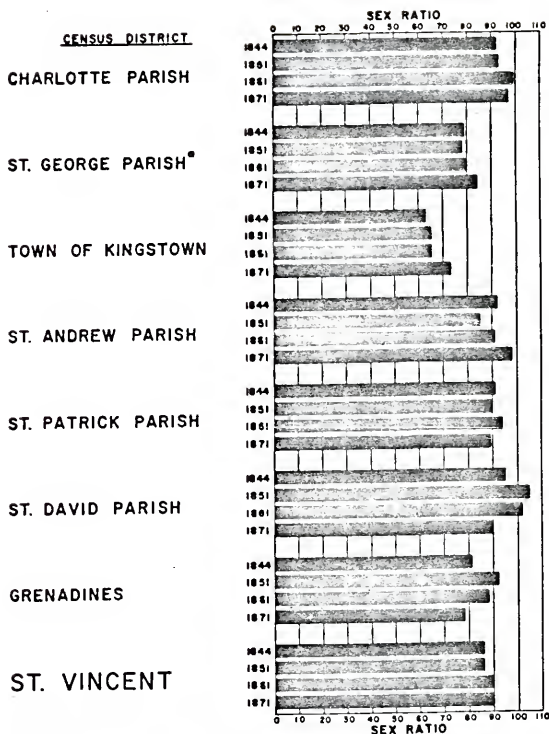
The Sex Ratio for St. Vincent

For the "main" island and Grenadine possessions, the sex ratio has been in a steady decline, at least since the end of the slave trade.²⁶ Given the preponderance of males in the slave trade, it is assumed that St. Vincent's sex ratio before

emancipation was probably greater than 100 males for every 100 females. With the end of slave trading and the aging of African-born ex-slaves, the sex ratio probably declined as mortality rates favored the female population in the older age groups.²⁷ The findings in the first official census in 1844 showed that at that time, 36 years after the cessation of slave trading in the British West Indies, the Vincentian sex ratio had been reduced to 86 males per 100 females. (See Figure 54.) By the infusion into the population of indentured alien laborers after 1844, the sex ratio began to increase, reaching a peak of 90 in the census years of 1861 and 1871. This was the highest sex ratio ever measured in St. Vincent and was not approached again until 1960, when the ratio was 89. (See Figure 55.)

Little information is available which would permit the determination of the sex composition of the Portuguese Madeirans and the "liberated" Africans who disembarked in St. Vincent in the quarter-century following Emancipation.²⁸ Records of the East Indian "coolie" immigration show that the sex ratio of the 2,237 indentured workers was 206.²⁹ The bulk of the East Indians were between the ages of 20 and 29 years, and a considerable percentage of males were older than 30 years. (See Figure 56.)

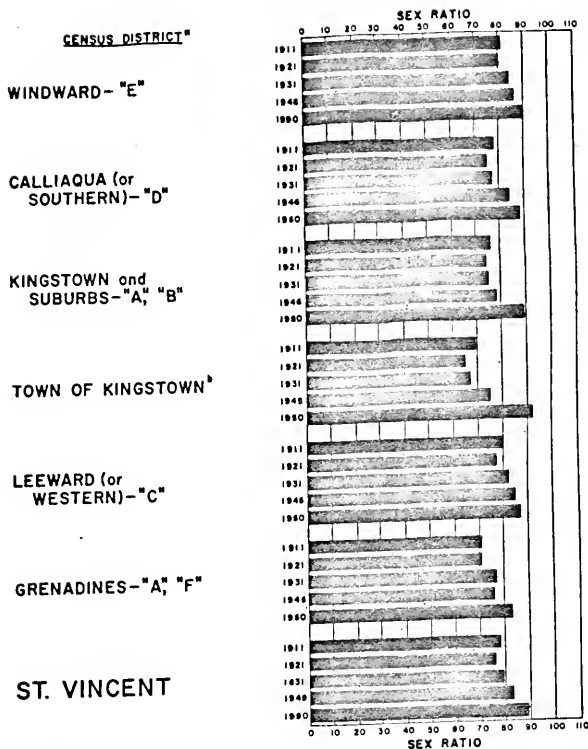
The cessation of alien labor immigration after 1880, coupled with incipient emigration of native Vincentians after the sugar industry faltered in the late 1870s, acted to depress the sex ratio after 1871. From 89 in 1881, the sex ratio fell rapidly to 84 in 1891, indicating the start of massive out-migration from St. Vincent. So many men left the colony that the number of males



* Includes the population of the town of Kingstown.

FIGURE 54

**SEX RATIO, BY MAJOR CENSUS DISTRICT, ST. VINCENT,
FOR THE CENSUSES 1844-1871**

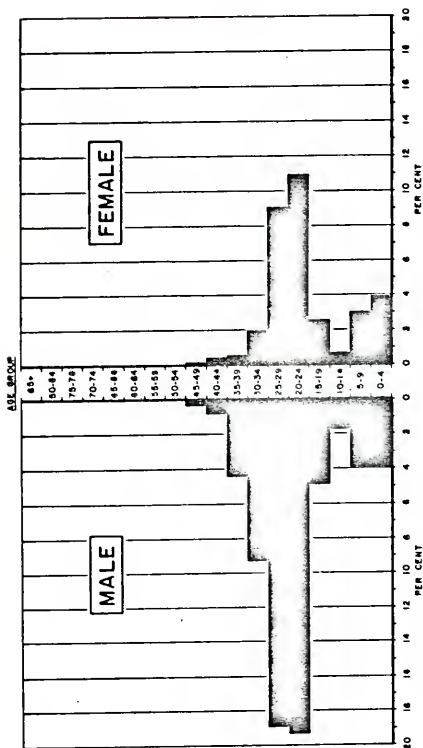


^a District names include those used between 1911 and 1960.

^b Excludes suburbs.

FIGURE 55

**SEX RATIO, BY MAJOR CENSUS DISTRICT, ST. VINCENT,
FOR THE CENSUSES 1911-1960**



Source: Contributions by the author from data found in Register of Immigrants—St. Vincent, a manuscript on file in the vault in the Office of the Registrar-General, St. Vincent.

FIGURE 56
AGE-SEX PROFILE OF EAST INDIAN IMMIGRANTS,
ST. VINCENT, 1861-1880

per 100 females reached a record low of 76 in 1921. (See Figure 55.) Thereafter, the sex ratio reversed itself and began to increase rapidly as emigrants found the job opportunities overseas reduced or non-existent and began encountering stiff immigration restrictions at their destinations.

The world economic depression in the 1930s, which led many emigrants to return to St. Vincent, and the increase in fertility caused the sex ratio to rise to 83 in 1946. Fourteen years later, the sex ratio had reached 89—a ratio only slightly under that of a century earlier. (See Figures 54 and 55.)

Intra-Island Variations in the Sex Ratio

It is possible, from the sex categorization of the population as far back as 1844, to observe the general patterns of spatial variations in sex composition for St. Vincent.³⁰ For the purposes of this study, these variations are divided into two sections—the 19th century and 20th century fluctuations.

The 19th Century.—In the latter half of the 1800s, St. Vincent experienced a considerable amount of internal variation in sex composition. In general, all of the Leeward parishes (St. Andrew, St. Patrick, and St. David) and Charlotte Parish along the Windward coast had sex ratios that were more masculine than the colony's average. (See Figure 54.) The highest sex ratios were found in the outlying parishes—Charlotte and St. David. The latter parish, in fact, registered more males than females in 1851 and 1861. (See Figure 55.) There is no ready explanation for this phenomenon, as few of the indentured immigrants were sent

to estates in St. David Parish and the unlikelihood that fertility was appreciably higher than elsewhere in the island.³¹ The Leeward parishes of St. Andrew and St. Patrick usually registered sex ratios above the colony's average, except in 1851 for St. Andrew and in 1871 for St. Patrick. (See Figure 54.) At no time after 1861 was there a sex ratio at or above equality (100) in any part of St. Vincent.

In St. George Parish (at the southern end of the island) and in the Grenadine possessions, there were so many more females than males that the sex ratios for these areas were well below the colony's average. As expected, St. George Parish and Kingstown had relatively low sex ratios.

Kingstown never had more than 73 males per 100 females in the censal period of the 19th century, and it was not until 1946 that this level was exceeded. Town life is commonly known to attract migrants, and in St. Vincent, those who left the island for overseas employment were usually men, while those who were, by definition, internal migrants were females moving short distances. The age and sex discussion in this chapter revealed that much of Kingstown's population was composed of young adults, with females in the majority at all ages above childhood.

The more densely populated area of numerous villages and settlements in St. George Parish, east of Kingstown, was probably the receiving zone for young females who left their homes and headed toward Kingstown, the island's primary center of social and commercial activity.

Throughout the Grenadine Islands, fishing and sailing were the dominant economic pursuits, even as small estates were abandoned following emancipation.³² In 1851, the number of males per 100 females exceeded the national average for the first and only time between 1844 and 1960. Most of the time, the absence of the male population, either temporary or permanent, depressed the sex ratio to levels considerably under the colony's average. This still remains a characteristic of the dependencies.

The 20th Century.—The censuses taken in this century reveal spatial variations similar to those of the previous century. An above-average sex ratio for the outlying districts, those comprised of the Windward and Leeward parishes may be observed.³³ The essentially estate-oriented economy of the Windward area accounts for the above-average sex ratios found there, although the ratio between the sexes has been weighted toward the female population.

The Leeward region, lacking towns and villages sufficiently large to affect its rural character, might be expected to have a higher-than-average sex ratio. Rural life is often conducive to out-migration by young females who are faced with an agricultural environment and a dearth of males of similar age.

Reflecting a 19th century pattern, the census districts enclosing the southern end of the island tend to have markedly below-average sex ratios. This feature had been accentuated in the capital, where extremely low sex ratios have been recorded. Before 1946, the number of males per 100 females remained relatively constant, fluctuating between 65 and 69. (See Figure 55.)

In keeping with its traditional life style, characterized by a transitory male population, the Grenadine dependencies registered extremely low sex ratios for places lacking large urban settlements. The lowest level recorded in the dependencies was 71 in 1911 and 1921 (the peak periods of emigration). (See Figure 55.)

A generalization for the 20th century population of St. Vincent is that the pace of rising sex ratios quickened after 1921. The end of massive emigration, induced by the barriers to international movements and the growing importance of arrowroot and Sea Island cotton production, combined with a burgeoning fertility rate, caused the sex ratio to shift toward the male population.

There is little hope that the country can equalize its sex ratio throughout the island, given the economic and social forces that have "pushed" men to seek overseas employment (even in the face of increasing immigration restrictions abroad) and have "pulled" women into the more attractive "urban" areas, especially to Kingstown and the southern coastal communities that have become tourist havens.

The Sex Ratio By Age Group

The final analysis of the sex composition of St. Vincent's population is a presentation of sex ratios by age groups to determine which ages have been affected the most by emigration. (See Figures 57 and 58.) Age groups for the censuses between 1891 and 1960 have been agglomerated to include the significant cycles of life that people pass through from childhood to old age. For the purposes of this study, the population under 15 years of age was considered to be economically inactive; the population between

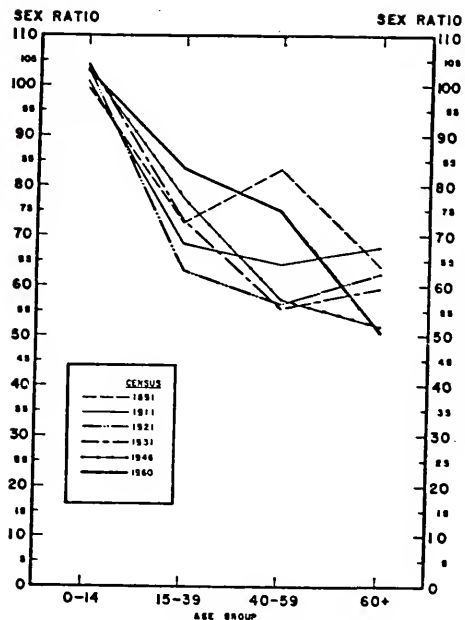


FIGURE 57
SEX RATIO, BY BROAD AGE GROUPS,
ST. VINCENT, 1891-1960

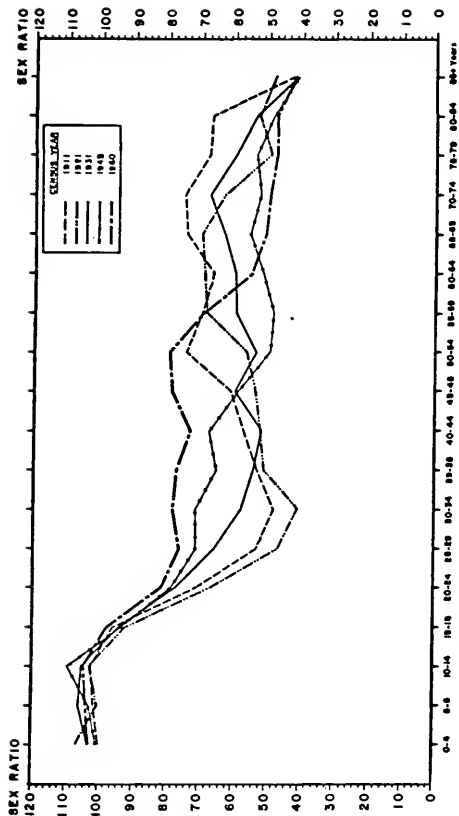


FIGURE 58
SEX RATIO, BY 5-YEAR AGE GROUPS, ST. VINCENT,
FOR THE CENSUS YEARS 1911-1960

15 and 39 years was assumed to be the most migration-prone, those between 40 and 59 years of age were considered to be out of the main ages for migration and reproduction; and the population 60 years and older was considered to be economically dependent.³⁴

Assuming that age statistics before 1946 were imperfect, it is true that the estimated long-term trend for sex ratios for the "youth" of St. Vincent has been essentially correct. From a "perfect" sex ratio of 100 in 1891, the ratio for youths became higher at succeeding censuses, to be expected when fertility increases added large numbers of children to the population, given the high sex ratio at birth. (See Figure 57.)

Between 1891 and 1921, the sex ratio for the migration-prone population decreased as large numbers of males continued to emigrate as they became of employment age. The end of massive emigration by 1921 and the rising fertility rates thereafter are revealed by higher ratios of males to females at each succeeding census after 1921. (See Figure 57.)

A close inspection of the age groups over time shows the extremely low sex ratios for young adults at all of the census dates in the 20th century. By 1921, there were only 63 males for every 100 females. As already indicated (page 15), the sex ratio should not be expected to fall below 100 until after the age of 50 years is reached—unless forces other than fertility and mortality are at work. In St. Vincent, the extraneous force has been emigration. The higher fertility after 1931 and the end of the desperate migration streams of the first quarter of the 20th century thus

boosted the sex ratio of the ages 15 through 39 years to 83 males per 100 females.

The ages 40 through 59 years have been affected the most by earlier migrations. In 1891, the sex ratio for this broad group was 83; it later fell to 55 in 1931 as old age favored the survival of females. The repatriation of emigrants during the 1930s and the early post-World War II years caused an increase in the sex ratio for this age group, reaching 75 by 1960. (See Figure 57.)

Losses from early 20th century emigrations is the probable reason for the sharp decline in the age group 60 years and older after 1931. From a sex ratio of 68 in 1921, the sex ratio dropped to 51 in 1960. (See Figure 57.)

In general, the most significant factor reducing the masculinity of those age groups above childhood has been the depleting effect of out-migration between 1891 and 1921. As the various adult age groups matured, losses from movement out of the country and the natural disadvantage faced by men vis-a-vis women in mortality at advanced ages acted to shift the sex ratio heavily in favor of the female population.

An understanding of St. Vincent's sex composition since 1911 is revealed by the study of 5-year age group sex ratios. (See Figure 58.) In all age groups from 15 years and older, there have been greatly reduced sex ratios. This is vivid proof of the "feminization" of St. Vincent's population and may help to explain why females began emigrating in increasing proportions to Trinidad and Tobago and the United Kingdom after 1946 and more recently to Canada after 1960.

The Racial Composition

One of the many distinguishing characteristics of any population is its racial or ethnic composition. In St. Vincent, importance has always been attached to the "race," "complexion," and "place of birth" of the people. Throughout most of the island's 18th and 19th century history, this variable was considered a valuable indicator of the potential availability of estate laborers, as most of the agricultural workers were non-white. Population estimates and censal enumerations usually contained a categorization of the people by "race" or some other equivalent description. Information describing the precise census meaning of "race," however, is wanting in the enumerations before 1946. In most instances, "color" [also "colour"] or "complexion" was the determining variable.³⁵ The inconsistency in racial classification makes long-term comparisons impossible and only by agglomerating several racial or ethnic groups is it possible to sketch the broadly changing patterns.³⁶

Given the inconsistency of racial classification, the author has chosen to divide the population into 4 groups: (1) black; (2) white; (3) mixed; and (4) other. (See Table 21.) The population recorded as black, Negro, African, or slave (before 1834) has been categorized as "black" by the author; those returned in the censuses as white or European were assumed to be "white." For the progeny of miscegenation—the so-called "coloured" [sic] population—the term "mixed" was retained. All of the other people were entered under the class titled "other," and included East Indians, other Asians, and Carib Indians.

TABLE 21
 RACIAL COMPOSITION, BY MAJOR CENSUS DISTRICT,
 ST. VINCENT, 1787-1960

Year	Census District	Total Population	Black/ African (%)	White/ European (%)	Mixed/ "Colored" (%)	Other (%)
1787	<u>St. Vincent</u>	13,603	87.2	10.6	2.2	—
1805	<u>St. Vincent</u>	18,550	89.0	8.6	2.4	—
1812	<u>St. Vincent</u>	27,455	90.9	3.8	5.3	—
1861	<u>St. Vincent</u>	31,755	71.2	7.3	19.9	1.4
	Charlotte	9,345	73.2	8.4	14.5	3.9
	St. George	12,232	65.2	8.7	25.5	0.6
	St. Andrew	2,736	79.5	5.4	14.4	0.7
	St. Patrick	2,682	74.2	4.2	20.7	0.9
	St. David	2,478	72.9	4.5	21.6	1.0
	Grenadines	2,282	79.1	4.9	15.8	0.2
1871	<u>St. Vincent</u>	35,688	69.2	6.5	18.8	5.5
	Windward P.D.	8,500	68.6	5.9	13.8	6.7
	Calliaqua P.D.	8,604	75.1	5.0	15.2	4.7
	Kingstown P.D.	10,391	61.1	10.2	26.3	2.4
	Leeward P.D.	5,882	73.1	3.5	18.0	5.4
	Grenadines P.D.	2,311	75.7	5.4	18.7	0.2

TABLE 21 Continued

Year	Census District	Total Population	Black/ African (%)	White/ European (%)	Mixed/ "Colored" (%)	Other (%)
1881	St. Vincent	40,548	70.0	6.6	17.4	6.0
	Windward P.D.	10,232	66.7	5.0	16.3	12.0
	Calliaqua P.D.	9,767	75.7	5.5	12.3	6.5
	Kingstown P.D.	9,970	61.7	12.5	24.0	0.8
	Leeward P.D.	7,888	74.4	2.8	17.7	5.1
	Grenadines P.D.	2,691	79.1	5.7	15.2	0.0
1946	St. Vincent	61,647	73.0	3.0	20.4	3.6
	Eastern	16,072	77.6	2.7	7.9	11.8
	Southern	14,279	77.6	2.6	12.7	7.1
	Kingstown	14,766	56.2	6.5	36.7	0.4
	Western	12,051	80.7	0.5	15.8	3.0
	Grenadines	4,479	76.5	1.2	22.1	0.2
1960	St. Vincent	79,948	70.3	2.3	21.8	5.6
	[Eastern]	20,932	69.5	0.2	21.7	8.6
	[Southern]	17,312	72.7	2.2	8.3	16.8
	[Kingstown]	21,836	67.4	5.0	25.7	1.9
	[Western]	14,786	73.4	0.2	21.2	5.2
	Grenadines	5,082	68.3	5.1	25.9	0.7

Source: Author's calculations.

The Historical Racial Composition of St. Vincent

As early as 1787, the island's population was estimated to be 13,603, of which 87 per cent were black slaves, 11 per cent were white, and the remainder were of mixed parentage, mostly offspring of black and white unions. (See Table 21.) By 1805, the racial proportions had changed only slightly, with a decrease in the white population and a small increase in the black and mixed categories. The cessation of the slave trade had little effect on the reported proportions of slaves, but there was a reversal of position between the white and mixed segments, with the latter moving into second place in numbers. (See Table 21.)

The end of slavery brought an expansion in the proportion of mixed and white groups, although the latter have always embraced only a small fraction of the total population—never more than 10 per cent and usually considerably less. The increase in the mixed population was at the expense of the black, as revealed by the census of 1861. The growth of the white population was the result primarily of the influx of some 2,100 Portuguese Madeirans between 1844 and 1850.

As East Indian indentured laborers arrived in the colony after 1861, they and their subsequent offspring boosted the percentage of the "other" population. The Carib Indians formed such a small group that their numbers affected the "other" category very little.

There is a 65-year gap in the racial statistics between 1881 and 1946, when race was crudely ascertained by a general

category captioned "complexion."³⁷ The 1946 and 1960 censuses revealed that the white population had declined to a nominal 2 to 3 per cent, while the black and mixed populations increased as a consequence of high fertility. (See Table 21 and Figure 59.) It is difficult to say whether the mixed population grew entirely by natural increase or by "definition," that is, more people may have classed themselves as "mixed" in order to enhance their social status.³⁸

Intra-Island Variations in Racial Composition

The meagerness of valid racial data for St. Vincent precludes an extensive description of internal variations in this characteristic. Typically, the pattern has been one of above-average proportions of whites in the capital, Kingstown, the chief center for government, commerce, and services. The same generalization pertains to the mixed population, reflecting an 18th and 19th century feature that has been carried over to the 20th century.

In the last half of the 1800s, the Windward region, with its heavy concentrations of indentured Portuguese Madeirans and East Indians, had an above-average percentage of people in the "other" category, which was mostly accounted for by the East Indians and their descendants. On the Leeward coast of St. Vincent and along the southern coast, east of Kingstown's suburban area, there have been greater-than-average proportions of blacks. Conversely, the Leeward coast has usually been under-represented by "whites."

Very few East Indians or their offspring have chosen to settle in the Grenadine Islands; these dependencies have been

populated predominantly by the black and mixed population, with only a token white representation at any one time. (See Table 21.)

Racial Variations by Age and Sex

Only brief mention need be made about the age and sex composition of the important racial groups owing to the absence of such cross-classifications before 1946. It was not until the 1946 census that the racial categories were reported both by age and sex.³⁹

In 1946 and 1960, the essential feature of the non-white races was their relative youthfulness. The white population, in contrast, contained 34 per cent of its total under the age of 15 years in 1946 and 37 per cent by 1960, considered by Smith and Zopf to be in their category of "medium youthfulness." The other major racial groups were characterized as having "high youthfulness," with more than 40 per cent of their population concentrated among children less than 15 years old.⁴⁰ (See Figure 60.)

St. Vincent's non-white population resembles that usually found in most economically and socially underdeveloped countries where high fertility results in an overwhelmingly large proportion of the population in the economically inactive group under 15 years of age. In 1946, for example, the mixed, East Indian, and black racial groups contained 48, 47, and 43 per cent, respectively, of their population under 15 years of age. (See Figure 59.) The same groups, in 1960, contained 56, 49, and 47 per cent, respectively, of their population in the youth category. Given



FIGURE 59

RACIAL COMPOSITION, BY CENSUS YEAR, ST. VINCENT, 1861-1960

the precarious economic cash crop history of the colony and the heavy burden of dependency, it is easy to understand why economic and social advancement may be a long time in arriving.

Contrasting patterns of "old age" among the various racial and ethnic groups of St. Vincent can be discerned in recent censuses. Using the categories adopted by Smith and Zopf, who divided the world's populations into high, medium, and low old-age proportions, using the percentage of population 65 years and older as the measure, it is possible to comment on modern 20th century trends.⁴¹ The Vincentian white population was of medium old age in 1946 (7.7 per cent) and high old age in 1960 (slightly above 8 per cent). (See Figure 59.)

The non-white races were characterized by low old-age populations in 1946 and 1960, with none recording an old-age proportion above 4.1 per cent in either year. Very likely, this resulted from high fertility and the consequent enlargement of the younger age groups.

The Rural-Urban Composition

Among the major demographic characteristics which describe a population (age, sex, race, and place of residence), the rural-urban location is important because of the differences noted in the dynamic factors of population change and population composition between rural and urban people.⁴² Ideally, it should be possible to cross-classify the changes in vital events and population composition by place of residence, but each country

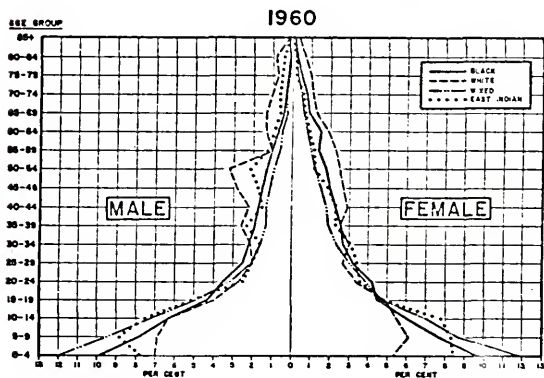
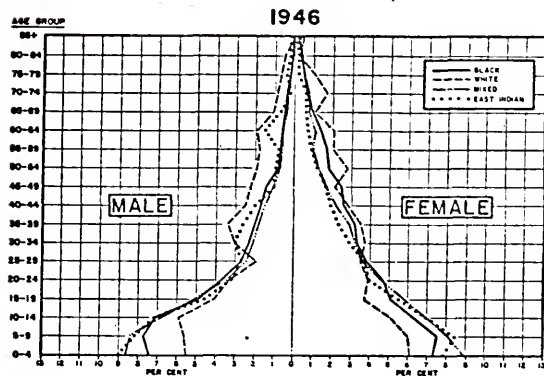
must face the problem of specifying the criteria that delimit "urban" and "rural" areas. Such criteria are not universally transferable owing to international differences in the size of populations and social and economic conditions.⁴³

St. Vincent did not face up to the problem of rural-urban differences until the 1946 census, when a flexible definition was agreed upon. The complexities of applying specific limits to urban places is much the same as trying to define civilization.⁴⁴ Accordingly, the categories of "urban" and "rural" were not adopted; instead "small towns" were set apart from their rural environs if they possessed "certain institutions and facilities" (which were, unfortunately, not all indicated in the census's administrative report) and had a minimum of 2,000 inhabitants.⁴⁵

The Number and Size of Settlements in St. Vincent

The average number of settlements of all sizes can only be determined for the census years 1861 through 1891.⁴⁶ Over this 30-year period, the average number of settlements was 263 (at each census date) and included towns, villages, estates, and isolated house sites.⁴⁷ (See Figure 61.) Most of the settlements had 50 or less inhabitants, the bulk being micro-settlements of less than 10 persons.

Among larger places with over 500 persons, the trend was toward more of these settlements after 1861, during the East Indian immigrations. With incipient emigration after 1881, there was a slight decline in the number of places with more than



Source: Author's calculations.

FIGURE 60
AGE-SEX PROFILE FOR SELECTED RACIAL
GROUPS, ST. VINCENT, 1946-1960

500 persons. (See Figure 60.) From a total of 6 places with more than 500 persons in 1861, the number increased to 16 in 1881, then fell to 11 in 1891.

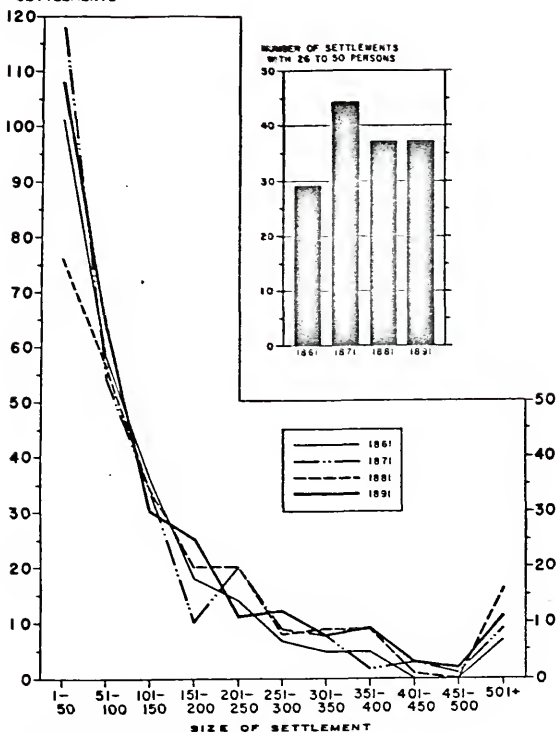
There were very few places with populations greater than 1,000 in the period between 1861 and 1891. Those that existed were: in 1861, Kingstown (5,105); in 1871, Kingstown (5,394) and Barrouallie (1,219); in 1881, Kingstown (5,593), Barrouallie (1,252), and Georgetown (1,021); and in 1891, Kingstown (4,547) and Barrouallie (1,109). (See Figures 61, 62, and 63.)

The growth of St. Vincent's principal towns and villages (Kingstown, Barrouallie, Chateaubelair, Calliaqua, and Georgetown) has been erratic, according to the census statistics—a phenomenon more indicative of changes in what was considered the effective town limits rather than changes in internal migration and natural increase. (See Figure 62.)

Kingstown, the island's primate city, has decreased in population size as the surrounding hillsides facing Kingstown Bay (outside the town's defined boundaries) have absorbed increasing numbers of internal migrants, repatriated emigrants, and civil servant families (who benefited from the Government's planned efforts to house them on the outskirts of Kingstown). As the town has declined in population, so has the "suburban" area grown.

The Sex Ratio of Principal Settlements

The only ascribed characteristic that is cross-classified in the censuses by principal settlement is the sex ratio. Owing

NUMBER OF
SETTLEMENTS

Source: Compiled by the author from the census reports.

FIGURE 6I
NUMBER OF SETTLEMENTS, BY SIZE,
ST. VINCENT, 1861-1891

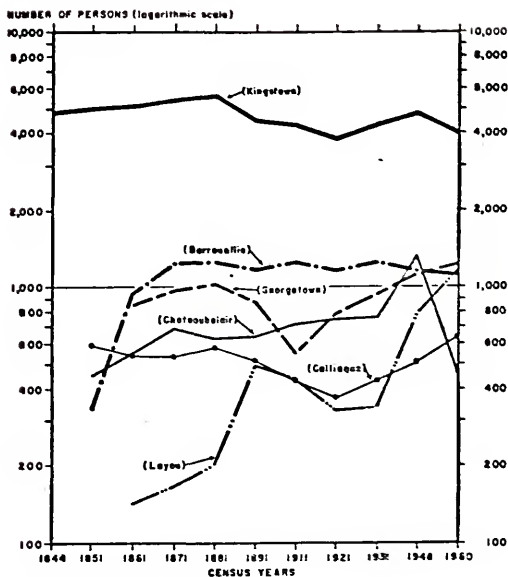


FIGURE 62
 SIZE OF PRINCIPAL TOWNS AND VILLAGES,
 ST. VINCENT, 1844-1960

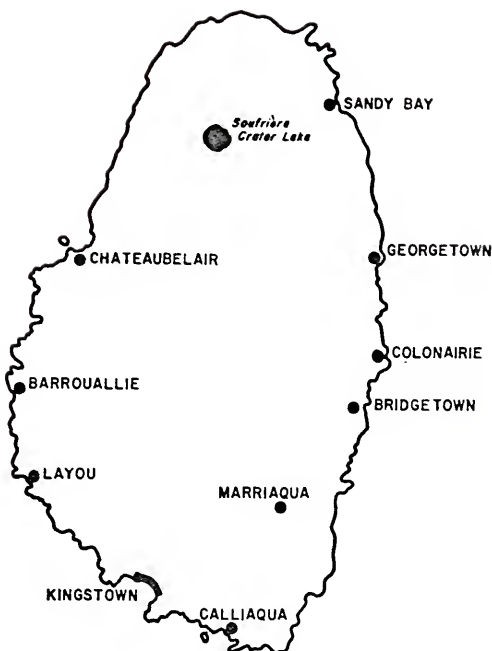


FIGURE 63
LOCATION OF PRINCIPAL SETTLEMENTS,
ST. VINCENT, 1960

to the small size of most of the population settlements in St. Vincent, their sex ratios have shown considerable fluctuations, for the change of a small number of either sex can unbalance the overall sex ratio. (See Table 22.)

Typically, the sex ratios of the larger towns have been well below the island's average. Only in the years following the Second World War has Kingstown's sex ratio approached the island average. Most of the other principal towns evidenced contrasting trends in sex ratios, that is, during periods of emigration, the sex ratio has increased in some communities while in others it has declined. The small towns and villages might also be expected to be affected similarly by economic and social forces, but, because some of the communities are more "rural" than "urban," the trend of sex ratios for these communities diverged from that of the more "urban" places.

A generalization about the spatial variation of sex ratios is that the towns in the outlying parishes along the Leeward coast (Chateaubelair and Barrouallie) and the Windward coast (Georgetown) have experienced higher proportions of males to females than those closer to (and including) Kingstown. Sandy Bay village, for example, one of the more remote settlements in the island, located on the lower northeastern slopes of the Soufrière volcano, has recorded the highest sex ratios—132 in 1871, 111 in 1881, 116 in 1946, and 100 in 1960. (See Table 22.) These are abnormally high sex ratios in any country and cannot be

TABLE 22
SEX RATIO OF PRINCIPAL TOWNS AND VILLAGES,
ST. VINCENT, 1844-1960

Place ^a	Sex Ratio										
	1844	1851	1861	1871	1881	1891	1911	1921	1931	1946	1960
Kingstown	66	65	65	73	71	67	69	65	67	75	85
Calliaqua	-	78	71	78	65	65	82	59	53	63	74
Barrouallie	-	75	80	75	75	79	94	78	82	73	82
Chateaubelair	-	85	91	81	94	79	75	77	75	84	75
Georgetown	-	-	95	87	84	79	65	85	81	84	84
Port Elizabeth, Bequia	-	-	89	74	68	74	-	-	-	69	72
Sandy Bay	-	-	87	132	111	87	-	-	-	116	100
Colonarie	-	-	64	76	107	106	-	-	-	78	77
Bridgetown	-	-	73	85	99	69	-	-	-	83	97
Marriaqua	-	-	-	80	93	84	-	-	-	76	106
Layou	-	-	94	87	97	88	76	73	77	82	75
ST. VINCENT	86	86	90	90	89	86	78	76	79	83	89

^aThe settlements listed in this table are those considered "small towns" by the 1960 census administrators, yet many were relatively unimportant during most of St. Vincent's history.

readily explained from the available date. As it happens, the village is the site of the last remaining Carib Indians and depends upon agricultural field labor for subsistence. This may explain why many men are found there, but it does not account for the absence of women.

The Occupational Status

In studying the past, present, and future of a population, besides the biological or "ascribed" characteristics (age, sex, and race), those variables that are influenced by personal choice, for example, occupational, educational, and marital status should also be included. For the purposes of this study, only "occupation" will be examined, as this characteristic follows closely the fluctuations in the economy and indicates how Vincentians have earned their living. It has already been demonstrated how the age, sex, race, and, to a lesser extent, place of residence, have changed over time and space in St. Vincent. The final section of this chapter is, therefore, concerned with the examination of the changing occupational status of the labor force, reflecting the traumatic reversals experienced in 200 years by the domestic economy.

The Composition of the Labor Force

A common problem encountered in working with West Indian census information is the difficulty of classifying occupations that have changed in function if not in name.⁴⁸ In this study, the "occupations" or "professions" listed in the censuses have

been grouped into several broad industrial classifications in order to reduce the error that might result from an overly-precise cataloguing of job types which may have changed considerably between 1861 and 1960. All of the occupations in the censuses have been assigned to one of three industrial groups: (1) primary activities; (2) secondary activities; and (3) tertiary activities.⁴⁹

The years before 1861 are not included in this analysis owing to the absence of occupational data. It is well known, however, that during slavery, the West Indian labor forces were comprised primarily of African chattel workers who, by authority rather than by choice, were forced to provide the needed labor. The proportion of slaves in the total population of each slave-holding country was, in essence, the "labor force."⁵⁰ In St. Vincent, for example, it can be assumed that approximately 85 to 90 per cent of the pre-emancipation population were "economically active."⁵¹

Between 1861 and 1960, the labor force in St. Vincent declined steadily in proportion to the total population. (See Table 23.) The end of slavery saw ex-slaves, especially women and young children, removed from the economically active population, once attendance at field labor was no longer compulsory. By 1861, 20,421 persons or 64 per cent of the total population were considered gainfully employed. In addition, each census after 1861 saw a drop in the proportion of people in the labor force so that by 1960, only 29 per cent of

TABLE 23
SEX RATIO OF ECONOMICALLY ACTIVE POPULATION,
BY MAJOR INDUSTRIAL GROUP,
ST. VINCENT, 1861-1960

Year	Industrial Group (Both Sexes)				Labor Force as Percentage of Population (%)
	Primary (number)	Secondary (number)	Tertiary (number)	Total Labor Force (number)	
1861	13305	3486	3630	20421	64.3
1871	14920	2928	3408	21256	59.6
1881	14549	3615	4342	22506	55.5
1891	13917	3317	4853	22087	53.8
1911	13138	3379	4049	20566	49.1
1921	14321	2837	4412	21570	48.5
1931	13054	2965	4066	20085	41.9
1946	12189	5168	5334	22691	36.8
1960	10095	5564	7651	23310	29.2
(Males)					
1911	6085	1563	1349	8997	
1921	6334	1439	1165	8938	
1931	6684	1846	1249	9779	
1946	6727	3312	2408	12447	
1960	6449	4003	3802	14254	

Table 23 Continued

Year	Industrial Group (Both Sexes)				Labor Force as Percentage of Population (%)
	Primary (number)	Secondary (number)	Tertiary (number)	Total Labor Force (number)	
	(Females)				
1911	7053	1816	2700	11569	
1921	7987	1398	3247	12632	
1931	6370	1119	2817	10306	
1946	5462	1856	2926	10244	
1960	3646	1561	3849	9056	
	(Sex Ratio, By Industrial Group)				
1911	86.3	86.1	50.0	77.8	
1921	79.3	102.9	35.9	70.6	
1931	104.9	165.0	44.3	94.9	
1946	123.2	178.4	82.3	121.5	
1960	176.9	256.4	98.8	157.4	

Source: Compiled by the author from the census reports.

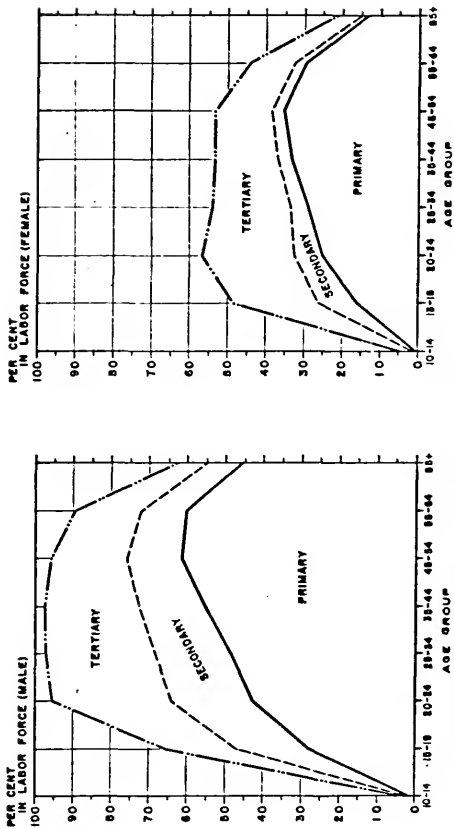
the population was economically active in St. Vincent. The explanation for the decline in the percentage of people working rests on the high fertility rates after 1931, as well as the cumulative effects of heavy emigration from 1881 to 1921 and again during the Second World War and the late 1950s. As some persons were added to the population by increased reproduction and others were withdrawn through emigration, the size of the laboring population fell in relation to the total population, which was growing "younger."

While the total population of St. Vincent increased by 152 per cent, from 1861 to 1960, the absolute size of the labor force grew by only 14 per cent. These statistics clearly point out the impact of losses from emigration, but the changing role of the female worker in St. Vincent should not be neglected as a significant element in this trend.

The Age and Sex Structure of the Labor Force.—Between 1911 and 1960 (the only years when the sex of workers was recorded), the number of gainfully employed males increased by 58 per cent, while that of females declined by 22 per cent (See Table 23.) Such a trend is characteristic of other West Indian societies.⁵² The sex ration of the labor force, from 1911 to 1960, evidenced the withdrawal of women from active employment. From 78 males per 100 females in 1911, the balance shifted in favor of men, so that by 1960, the sex ratio stood at 157.⁵³ (See Table 23.) This occurred, it should be noted, despite the predominance of females in the total population.

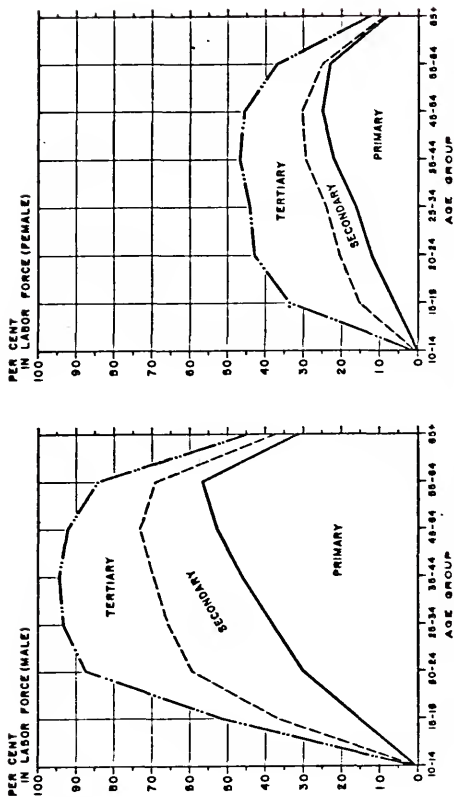
In general, the proportions of each age group in the economically active population (for both sexes) declined between 1946 and 1960. (See Figures 64 and 65.) Youths entered the working population at later ages in 1960 than they did in 1946.⁵⁴ For males in the age group 15 to 19 years, 66 per cent were in the labor force in 1946, while only 52 per cent were in the labor force in 1960. The percentage of economically active females in the same age group fell from 48 per cent to 34 per cent. (See Figures 64 and 65.) The most economically active age group for females was 20-24 years in 1946, when 57 per cent were in the labor force, and 35-44 years in 1960, when 47 per cent were employed. Typically, males have been much more active in the labor force than females, at all ages, despite their numerical inferiority.

The Occupational-Industrial Status.—St. Vincent has always been a monocultural economy, with most of its work force engaged in the primary sector, mainly as agricultural laborers. (See Figure 66.) The percentage of the labor force engaged in the primary activities remained relatively constant between 1861 and 1931. The slight increase in primary employment registered in 1871 coincided with the introduction of East Indians, while the small decline recorded between 1891 and 1911 was associated with emigration. Not surprisingly, the majority of workers in the primary sector have been agricultural workers.⁵⁵ Between 1911 and 1921, females were in the majority among agricultural laborers owing to the departure overseas of large numbers of males during the previous decades.



Source: Compiled and computed from BULL. IND. STAT., 1946, Part IV, "Composition of the Workforce," Tables 31 and 32.

FIGURE 64
PERCENTAGE DISTRIBUTION OF LABOR FORCE, BY AGE,
SEX, AND MAJOR INDUSTRIAL GROUP,
ST. VINCENT, 1946



Source: Compiled and computed from *REPUBLICAN COUNCIL, 1950, STATISTICAL YEARBOOK, Volume III, Part I, "Age and Sex Group," Table 8, and Part II, "Working Population," Table 9*

FIGURE 65
PERCENTAGE DISTRIBUTION OF LABOR FORCE, BY AGE,
SEX, AND MAJOR INDUSTRIAL GROUP,
ST. VINCENT, 1960

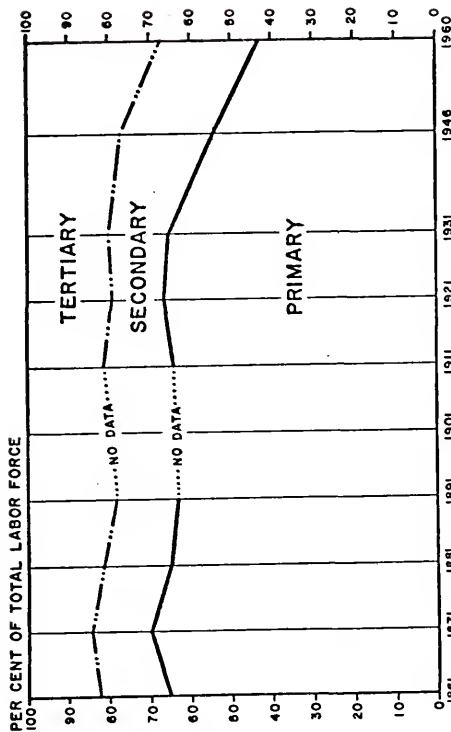


FIGURE 66
MAJOR INDUSTRIAL GROUPS AS A PERCENTAGE OF
TOTAL LABOR FORCE, ST. VINCENT, 1861-1960

Those workers involved in secondary and tertiary occupations maintained their proportional representation in the labor force until 1931. Thereafter their representation increased, following a shift out of farming by the younger population. Historically, carpenters and cabinet makers made up the largest single occupational group in the secondary sector (manufacturing and construction). The most common occupations found in the tertiary sector (services) were those of domestic servants, cooks, and laundresses. These were always female occupations.

An inspection of the data for the age and sex composition of the various major industrial categories reveals that the older population groups of both sexes have been more involved in the primary sector (mainly agriculture) than in manufacturing and construction or the service sector.⁵⁶ In recent decades, the young worker in St. Vincent has apparently been more likely to seek employment in the secondary or tertiary sectors than in farming. (See Figures 64 and 65.)

If economic diversification is intensified in St. Vincent, as has been evident by governmental plans after 1960, more service and manufacturing and construction jobs will be created. Those who opt to remain in agriculture will likely be the older population.

Summary

St. Vincent's population has been and continues to be a "young" population. High fertility rates throughout most of its history, combined with heavy emigration, have served to reduce the average age of the population. Record fertility levels since

the 1930s have added thousands of children to the population, increasing the burden of economic dependency, owing to the absence of much of the island's working-age population. Economically active adults, who have remained at home together with those who have returned, disillusioned, to St. Vincent, partly as a result of immigration restrictions abroad, have been forced to supply a rapidly expanding proportion of children and elderly persons, by their own efforts—clearly insufficient to ensure a rising standard of living for the entire population, without funds-in-aid from the United Kingdom.

In addition to being "young," St. Vincent's total population is "feminine," that is, the sex ratio is low. The selectivity of migration over most of the past century has depleted the male population above 15 years of age. Men had left to seek jobs overseas when the foundation of the 19th-century economy—the sugar cane industry—fell on hard times. Women who had removed themselves from the labor force after emancipation were forced to return to paid employment before the turn of the 20th century.

Soon after St. Vincent was settled, the periodic importations of black African slaves made the island a predominantly black society. Emancipation removed compulsory labor from the economy and saw a steadily increasing proportion of offspring from black and white population diminished absolutely and proportionately as the mixed racial population expanded, aided by the addition of thousands of indentured foreign laborers after emancipation.

Following living habits established by estate work during slavery, the emancipated population continued to reside in

nucleated settlements near the estates. Urban growth as understood in the advanced industrial nations was never present in St. Vincent, with the possible exception of Kingstown, which has retained its dominant position as the island's primate city. Rural life has strongly permeated the villages and towns spotted along the major highways.

A reflection of the rural life style so apparent in St. Vincent has been the paramount position held by agricultural employment as the main occupation. Fluctuating cash crop regimes have all depended upon abundant field labor, with resort to female workers when males were in short supply.

By 1960, St. Vincent was facing an uncertain future, as mass emigration—the release-valve for population pressure—became less feasible. Attention has had to be refocused internally in an attempt to cope with a rapid population growth, a precarious economy, and a growing dissatisfaction among young adults with traditional employment outlets. All events in the succeeding decade have been directed to solving a problem shared by the entire Third World. It is not, however, the purpose of this study to do other than describe and explain the events leading up to the threshold of 1960.

NOTES TO CHAPTER VII

¹"Urban" centers as commonly understood in the economically developed nations were lacking in St. Vincent. The problem of the rural-urban continuum will be discussed later in this chapter.

²Age was given in 10-year age groups and cross-classified by sex. Without early vital statistics records and life tables for the 19th century, the accuracy of the age reporting cannot be tested.

It was in 1911 that 5-year age groups were reported and not until 1946 that single-year distributions were available. The first modern, comprehensive West Indian census was taken in Jamaica, in 1943. With the census of the Windward Islands, in 1946, and the vital statistics records of the early 1950s, the first life table for St. Vincent was prepared, using population estimates for 1951 and the mortality rates for 1950 to 1952. See: University of the West Indies, Life Tables for British Caribbean Countries, 1959-61, Census Research Programme, Publication No. 9 (Kingston, Jamaica: University of the West Indies, 1966), p.1.

As indicated in Chapter VI of the present study, there was a degree of error present in the 1946 and the 1960 censuses. The author used several tests for determining age accuracy for 1946 and 1960 and found that, surprisingly, the 1946 census was more accurate than the 1960 enumeration. Whipple's "index of concentration" to determine the heaping of reported ages was 114.2 for the total population in 1946 (115.3 for males and 113.5 for females). According to the 5 categories of accuracy established by Whipple in the United Nation's Demographic Yearbook, 1955, St. Vincent's 1946 age statistics are classed as "approximate data" (110 to 124.9 are the outside limits set by Whipple). The index for the Windward Islands as a group was 136.7 ("rough data"). For 1960, St. Vincent's age statistics are classed as "approximate data" but were less accurate than in 1946. The index was 116.9 for the colony, 115.2 for males, and 118.2 for females.

Another test used to test the tendency for reporting ages at particular years was "Myer's Blended Method," which derives an "index of preference" to show the degree of age heaping. See: Robert J. Myers, "Errors and Bias in the Reporting of Ages in Census Data," Transactions of the Actuarial Society, XLI, Part 2, No. 104 (October, 1940), pp. 395-415. The index of preference is the sum of the absolute deviations from 10 per cent for each digit (0,1,2, . . . 9). A zero index indicates perfect age reporting. In 1946, St. Vincent measured 6.38 for males and 7.38 for females. This was one of the lowest indices for the West

Indies in that year. In 1960, the indices were 13.50 for males and 10.68 for females, indicating a deterioration in reporting ages accurately. See: University of the West India, Life Tables, 1959-61, pp. 2-4.

³Age-sex pyramids with 5-year groupings for 1911 through 1931 reveal a consistent pattern of apparent under-enumeration or misrepresentation of ages for the population 5-9 years of age. If there had been an event that reduced this age group in 1911, it should have been reflected in the age group 15-19 years in the 1921 census and the 25-29 year age group in 1931. This was not visible at the succeeding censuses. Whatever error occurred was consistently present for the 1921 and 1931 censuses. Migration would not have affected this age group of children, therefore, it must be assumed that the error was in the reporting.

⁴Donald J. Bogue, Principles of Demography (New York: John Wiley & Sons, Inc., 1969), p. 149.

⁵The use of the less precise 10-year age grouping is necessary if change over the longest time span possible is to be reviewed. The fact that the 1861 census recorded ages only in broad 10-year intervals forces the investigator to use this approach for a general view of the demographic changes in St. Vincent.

⁶Part of the increase in the level of the index numbers for the age groups 0-9 years and 60 years and older might be due to misstatements of age, as the extremes of the age profile are most characterized by this error. The tendency for misstatement of age is particularly acute in areas of low economic and social development. See: T. Lynn Smith and Paul E. Zopf, Jr., Demography: Principles and Methods (Philadelphia: F.A. Davis, 1970), p. 152; George W. Barclay, Techniques of Population Analysis (New York: John Wiley & Sons, Inc., 1958), p. 66.

⁷The age group 5-9 years for 1911 through 1931 is clearly under-represented. This was recognized elsewhere but no explanation was given. See: Joycelin Byrne, "Population Growth in St. Vincent," Social and Economic Studies, XVIII, No. 2 (June, 1969), p. 157.

⁸A crude measure of the mass emigration that occurred after 1891 can be seen from the published estimate of population as of April 7, 1901, which was presented in lieu of an official census for that year. It was reported that in the intervening censal decade, 31,345 departures from St. Vincent and 29,528 arrivals were officially registered. This probably included a double counting of workers who may have come and gone several times in response to the annual sugar cane harvesting season in Trinidad and Tobago. See: The St. Vincent Government Gazette, 1901, p. 216. [Hereafter this reference will be cited as Government Gazette, with the year given.]

⁹ A sample of 400 emigrants from St. Vincent to other West Indian countries between June, 1959, and September, 1960, revealed the following information regarding migration: (a) 81 per cent of the emigrants went to Trinidad and Tobago; (b) 60 per cent were females; (c) 50 per cent of all emigrants were female "domestic servants," "seamstresses," and "school teachers;" (d) 55 per cent were between the ages of 15 and 30 years; (e) 29 per cent were "urban" inhabitants (a hasty definition that included people who lived in the towns or environs of Kingstown, Georgetown, and Bridgetown). See: Edwin P. Reubens, Migration and Development in the West Indies, Studies in Federal Economics, No. 3 (Kingston, Jamaica: Institute of Social and Economic Research, University College of the West Indies, [1960]), Tables II-13 through II-17, p. 38.

Between 1957 and 1960, there were 2,540 Vincentians who embarked for Britain specifically to seek employment; by 1966, there were 7,060 who left for the same reason. See: Annual Report of the Saint Vincent Police Force, for the years 1957 through 1966. An indication of the sex selectivity of the migration streams to Britain, which offers a possible insight into St. Vincent's pattern, is that in 1955, only 15 per cent of Dominica's emigrants were females, whereas, by 1958, 47 per cent were women. By 1960, this had fallen to 41 per cent. See: R. B. Davison, West Indian Migrants (London: Oxford University Press, 1962), Table 9, p. 15.

¹⁰ Bogue, Principles of Demography, p. 669.

¹¹ Comparisons using 5-year age intervals are possible for the censal enumerations from 1911 to 1960. The 1891 census had 5-year age groups for the population under 20 years of age, but not above it.

¹² University of the West Indies, Life Tables, 1959-61, pp. 3-4.

¹³ Ibid., pp. 3-4.

¹⁴ University of the West Indies, Life Tables for West Indian Populations, 1945-47 and 1950-52, Census Research Programme, Publication No. 14 (Kingston, Jamaica: University of the West Indies, 1966), Table 19, pp. 20-21.

¹⁵ University of the West Indies, Life Tables, 1959-61, Table 13, pp. 56-59.

¹⁶ The century-long time series analysis of age and sex distribution by 10-year age groups is dictated by the age reports in the 1861 census. At that time, ages were grouped in 10-year segments (0-9, 10-19, . . . 60 years and older). Census data after 1891 have been re-grouped by the author similarly to allow comparisons over time and space.

¹⁷ By 1861, there were 786 persons reported as being born in the Madeira Islands, out of a total of some 2,100 who disembarked in St. Vincent between 1844 and 1850. Of the foreign-born Madeirans, 48 per cent resided in Charlotte Parish, 36 per cent lived in St. George Parish (14 per cent in Kingstown), while only 16 per cent were scattered along the Leeward coast. Of the 907 blacks born in Africa, 39 per cent were in Charlotte Parish, 26 per cent in St. George Parish, and the remaining 35 per cent were living in the Leeward parishes (especially in St. Andrew and St. Patrick Parishes) and in the Grenadine Islands. See: Saint Vincent, Census, 1861, Table No. 8, n.p.

The census in 1871 showed that of 1,260 persons born in India, 44 per cent resided in the Windward Census District (most of St. George Parish), 15 per cent were found in the environs of Kingstown, and 14 per cent were located in the 3 Leeward parishes. See: Government Gazette, 1871, Table No. 5, p. 214.

¹⁸ Bogue, Principles of Demography, p. 764.

¹⁹ Ibid., p. 472.

²⁰ Few of the Grenadine Islands have been studied as well as the island of Carriacou, a dependency of Grenada and the largest of the string of islets stretching over the 60 miles between St. Vincent's "main" island and Grenada. Carriacou's history, which may be indicative of the work habits of most Grenadine islanders, shows that a high percentage of the male population is engaged in fishing, sailing, and overseas work and is often absent at any one time from their home islands. Most of the men who seek overseas work do so in Trinidad and Tobago, the favorite destination for emigrants from the southern Windward Islands, both legally and illegally. See: M. G. Smith, "The Transformation of Land Rights by Transmission in Carriacou," Social and Economic Studies, V, No. 2 (June, 1956), p. 104; and ibid., Kingship and Community in Carriacou (New Haven: Yale University Press, 1962).

²¹ Government Gazette, 1896, p. 390.

²² Although the dependency ratio has universal acceptance in concept, there is a variation at the lower end of the "working ages." Bogue prefers 20 years as the first year of "working age," while Barclay and Smith and Zopf use 15 years as the age of employment potential. See, respectively: Bogue, Principles of Demography, pp. 154-155; Barclay, Techniques of Population Analysis, pp. 266-267; and Smith and Zopf, Demography, pp. 166-169. In the United States and other economically and socially developed countries, 20 years may be reasonable as the beginning of working life, but in an underdeveloped agriculturally-oriented economy,

such as St. Vincent, 15 years seems more logical. The dependency ratio is determined by dividing the sum of the dependent age groups ("youth" and "old age") by the "working age" population and multiplying the result by a constant (100) to express the burden of dependency as so many dependents per 100 persons of working age. This is the total dependency ratio, which is comprised of the "youth" and "old age" dependency ratios.

²³ From 1861 to 1881, age data were presented in 10-year age groups. To use 10 years as the minimum working age and 60 years as the maximum age is inadequate. Unfortunately, all of the people 60 years and older were lumped together in one age group.

²⁴ To gain an idea of the relative burden of dependency in other countries, the author calculated the total dependency ratio for several nations. In 1965, Sweden (a demographically "old" population) had a ratio of 51. The United States had a ratio of 64 in 1968, and Costa Rica (one of the fastest growing countries in Latin America) had a ratio of 107 in 1963. The data used for these calculations are found in United Nations, Demographic Yearbook, 1968 (New York: United Nations, 1969), Table 5, pp. 134-156.

²⁵ The sex ratio, the most common measure of the relative balance between the sexes in a given population is determined by dividing the number of males by the number of females in a given population and multiplying the result by a constant, usually 100 or 1,000. In this study, the constant is 100. The sex ratio number refers to the number of males per 100 females.

²⁶ The earliest published breakdown of St. Vincent's population by sex appeared in the census of 1844. Another early crude estimate of population was reported by Valentine Morris, who was governor of St. Vincent in 1776. He listed the white population, in March, 1777, as 911 men, 126 women, and 1,810 children. The sex ratio of the adult white population was, therefore, 723, extremely high for a long-time settled area but not out of reason for a frontier area. St. Vincent had passed into British possession a mere 13 years earlier. See: Ivor Walters, The Unfortunate Valentine Morris (Newport, Eng.: R. H. Johns, Ltd., 1964), p. 39.

²⁷ Roberts notes that the sex ratio for Jamaican slaves was 100.3 in 1817 and 96.4 in 1829. By 1844, it had declined further to 92.8. See: G. W. Roberts, The Population of Jamaica (Cambridge, Eng.: The Conservation Foundation at the University Press, 1957), p. 71.

²⁸ There were 1,036 "liberated" Africans brought to St. Vincent between 1850 and 1862, but age and sex information is not available for these immigrants. Such information is available,

however, for 213 out of 227 Africans disembarked between July 9, 1860, and April 11, 1862. The sex ratio for these laborers was 238. All of the Africans were under 15 years of age. See: Immigration Office, "Register of Immigrants—African," a manuscript record of the arrival of liberated Africans, deposited in the safety vault of the St. Vincent Registrar-General's office in Kingstown. One source indicated that by 1844, 996 Portuguese Madeiran males and 1,069 females had been imported into the colony; therefore, the sex ratio was 93. See: The Colony of St. Vincent, Blue Book, 1850, pp. 134-135. [Hereafter this source will be referred to as Blue Book, with the appropriate year added.]

²⁹ Immigration Office, "Register of Immigrants—No. 1, Indians [1861-1880]," a manuscript record of the arrival of East Indians, deposited in the safety vault of the Registrar-General's office in Kingstown.

³⁰ Figure 54 omits the census districts for 1881 and 1891 because the census reports for these years did not list the age and sex composition of the population by parish, as did the previous censuses. The enumeration districts for 1881 and 1891 were not comparable with the parish boundaries of the earlier censuses.

³¹ A high birth rate tends to inflate the sex ratio because all sex ratios at birth are greater than 100, although the negro sex ratio is generally accepted as being less than that of the white population. The white sex ratio at birth in the 20th century is about 105 or 106, while that of the American negro is about 103. It has yet to be proved whether the low negro sex ratio at birth is due to the biological or social conditions of the mother. See: Bogue, Principles of Demography, p. 166.

³² In 1819, there were 36 cotton and sugar estates in the Grenadine Islands of St. Vincent, employing some 2,500 slaves. By 1844, only 7 estates were functioning with a total of 282 estate workers. See: Estates Book, pp. 214-234. Most of the ex-slaves were apparently occupied in non-agricultural employment, despite their habit of squatting on abandoned estate lands. See: Blue Book, 1858, p. 249.

³³ Some confusion attends a comparison of census districts in the 20th century, as there was no consistency in naming these districts. For the censuses of 1911 through 1931, districts were designated by letter (District A, District B, and so forth), while the 1946 census grouped village-centered districts into major divisions that were named by the cardinal points (Western District, Eastern District, and so forth). In 1960, major census districts were composed of agglomerations of numerous sub-districts and

were named according to the major town or village in each major district. The author has re-named the major districts according to the more commonly used designations of the past century in order to eliminate a multiplicity of names that refer to almost identical areas.

³⁴ The age groupings used are limited by the amount of detail provided in the census reports, particularly in the enumeration of 1891. At that time, there was no breakdown of ages above 60 years, therefore, 60 years was, by necessity, chosen as the lower limit of old age dependence in the comparison of sex ratios. Before 1891, age data by 5-year age groups for the population under 15 years was lacking. The author chose to eliminate the previous censuses from the comparison.

³⁵ Nearly every country has had to face this problem, as no hard and fast rules exist that can be applied uniformly to the categorization of people by "racial" groups. The usual method for grouping people by race or ethnic background has been to select nationally recognized "racial" groups bearing generally accepted social distinctions. This practice, unfortunately, makes international comparisons over time difficult. See: Bogue, Principles of Demography, p. 173. In the United States, for example, people of apparently pure "Negro" or mixed Negro and white percentage are considered to be "Negro" for census purposes. In St. Vincent, there has always been a separation between "African" (Negro, black) and mixed or "coloured [sic]." This is usually determined by color, reported by a respondent to a census or assigned by the census enumerator. See: Population Census, 1960, Eastern Caribbean Region, Volume I, Part A: "Administrative Report" (Port-of-Spain, Trinidad and Tobago: Central Statistical Office, 1967), p. 19.

³⁶ In the published pre-censal population estimates, it can be taken that the caption "slaves" (or laborers after emancipation) referred to blacks. The "mixed" or "coloured [sic]" population referred to the progeny of white and black sexual unions. The Carib Indians have been treated inconsistently, both as "coloured" and "black" and were most likely dependent upon the census enumerator's personal judgment of color or social class. After alien laborers entered the population in the post-emancipation years up to 1880, racial determination became more complicated, for many East Indians were black in complexion and, therefore, categories were added to distinguish "race," "complexion," and place of birth." The Portuguese Madeirans were included in the "white" or "European" population and black and Madeiran miscegenation added to the "mixed" segment. The census of 1891 classified the population by "complexion" and "place of birth" but not by "race," as had been done between 1861 and 1881. The early 20th century censuses (1911 through 1931) omitted entirely "race" and "complexion" and recorded

only "place of birth." In the 19th century, "place of birth" could have been used to help determine race, for many residents were foreign-born (the labor immigrants). This was useless in the 20th century because none of the offspring of the East Indians, Portuguese Madeirans, or Africans had been born in their parent's homeland. It was not until the 1946 and 1960 censuses that internationally accepted racial classes were used:

While there has been an appreciable degree of miscegenation, the racial groups doubtless retain sufficient identity to justify conformity to international requirements on this aspect of the census and therefore a simple racial or ethnic classification has been recognized.

See: Population Census, 1960, Eastern Caribbean Region, "Administrative Report," p. 19.

³⁷ There is no way to distinguish between the East Indians who were sometimes grouped with blacks and other times returned with the mixed population. The Carib population was similarly treated.

³⁸ Most West Indian countries, including St. Vincent, have a recognizable social class hierarchy based on color, with whites at the top and blacks at the bottom, although many exceptions can be found. Until recent times, lighter skin color was considered by many to be more desirable. See: David Lowenthal, West Indian Societies (New York: Oxford University Press, 1972), pp. 81-84; ibid., "Race and Color in the West Indies," Daedalus (Spring, 1967), pp. 580-626; also Lloyd Braithwaite, "Social Stratification in Trinidad: A Preliminary Analysis," Social and Economic Studies, II, Nos. 2-3 (1953), pp. 5-175.

It will be interesting to examine the 1970 census tabulations on race to see if the American "Black Power" philosophy of the late 1960s has had any effect on respondents' self-categorization of their race.

³⁹ The census of 1891 was the first to record racial groups by sex; however, the inconsistency of racial categorization between 1911 and 1931 renders a long-term analysis impossible. Age and sex, by race group, appeared for the first time in the 1946 census.

⁴⁰ Smith and Zopf developed a scale to describe the percentage of a total population under 15 years of age based on the percentage distribution of 62 countries. A country with less than 32 per cent of its population among its youth was characterized as being of low youthfulness; between 32 and 39.9 per cent, it was of medium youthfulness; and 40 per cent or more was high youthfulness. See: Smith and Zopf, Demography, pp. 168-169.

41 Old-age populations are characterized as low if less than 5 per cent of the total population is 65 years old or older; medium if the proportion is 5 to 7.9 per cent; and high if 8 per cent or more are above 65 years of age. See: Ibid., pp. 168-169.

42 Ibid., p. 73.

43 Bogue, Principles of Demography, p. 465.

44 "What is civilisation? I don't know. I can't define it in abstract terms—yet. But I think I can recognize it when I see it; . . . " See: Kenneth Clark, Civilisation: A Personal View (New York: Harper & Row, Publishers, 1969), p.1.

45 The minimum population size of 2,000 was waived if other principal criteria applied, for example, "the quality of roads, the presence or absence of electric power and adequate water supply." Other criteria that helped to define "small towns" were the presence of Government offices, court houses, police stations, and cinemas. Many times settlements were considered "small towns" at the expressed request of the St. Vincent Government. In most cases, small town boundaries were arbitrarily delimited as most had no legal status. See: Population Census, Eastern Caribbean Region, "Administrative Report," pp. 10-11.

46 Before 1861, the published census reports did not list the size of all settlements. Beginning in 1861 and extending through 1891, every population settlement, regardless of size, was listed in the census. It was the practice at that time to assign each inhabitant to a named place, which meant that many times the named settlement had only 1 or 2 persons. The settlements included towns, villages, estates, and "small settlements."

47 In 1861, there were 251 towns, villages, estates, and small settlements; in 1871, there were 268; in 1881, there were 249; and in 1891, there were 282. Occasionally neighboring estates or small settlements were combined for one census, but not for another. The census totals refer to the absolute number of individual population sizes listed in each census report.

48 Roberts states the case for Jamaica, although it is applicable to all West Indian censuses:

Changing concepts of the working population, changing definitions of its major classes, and the persistent attempts to fit the essentially simple occupational patterns of the island [Jamaica] into elaborate classifications, more suitable to countries on the road to full industrialization, impose

severe limitations on the available data . . . It is probable that not all the occupational categories listed in the Jamaica censuses, particularly those of the nineteenth century, cover persons continuously engaged in the production of marketable goods and services, . . .

See: Roberts, Jamaica, pp. 85-86.

⁴⁹ The "primary" industrial group includes occupations in agriculture, forestry, hunting, fishing, mining and quarrying. "Secondary" industrial occupations include all those relating to manufacturing and construction. The remaining occupations—those relating to services and commerce—make up the "tertiary" industrial group. In order to compare data in 1861 with information in 1960, it has been necessary to set up this three-fold industrial classification.

⁵⁰ Hereafter the terms "labor force" (used in the United States), "economically active population" (used by the United Nations and the 1960 West Indian censuses), and "gainfully employed" (used in the 1946 West Indian censuses) will be used interchangeably.

⁵¹ As a comparison, 82 per cent of the Jamaican population were working at one job or another in 1834. See: Roberts, Jamaica, p. 85.

⁵² Ibid., p. 86.

⁵³ With the absence of many men from St. Vincent during the Second World War, most of whom were in Trinidad and Tobago and the Netherlands Antilles, one might expect more women to be engaged in gainful employment; however, the high wages earned outside of the colony were remitted to families in St. Vincent who opted to buy food rather than raise it. See: Report on the Agricultural Department, 1944, p. 7.

⁵⁴ Between 1921 and 1960, the proportion of school age population (5 through 14 years of age) recorded as not attending school declined from 29 per cent to 1 per cent. See: Byrne, "Population Growth in St. Vincent," p. 162.

⁵⁵ The marked decline in agricultural laborers returned by the 1931 census was acknowledged to be an error on the part of the census enumerators who were not thorough enough in their attempts to help "the uninformed householder" fill out the schedules. See: Report and General Abstracts of the Census of 1931, p. 6.

56

In recent decades, the younger worker in St. Vincent has apparently been more likely to seek employment in the secondary or tertiary sectors of the economy rather than in farming. This was abundantly clear from the author's personal observations while on field trips throughout the length and breadth of St. Vincent. Most of the farmers encountered in "the bush" were old, many apparently past 60 years of age. Their constant complaint was that the young disdained manual work in the fields. It was pointed out to the author several times by various officials, for example, those in the banana industry, that their clerks in the Kingstown headquarters could earn more money in farming than in office work, but "white collar" jobs had more social appeal and allowed the young workers to live in or near Kingstown where social life was more varied. For exactly the same observation, see: David L. Niddrie, Land Use and Population in Tobago, The World Land Use Survey, Regional Monograph No. 3 (Bude, Eng.: Geographical Publications, 1961), pp. 48-49.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

The purpose of this study of St. Vincent is the reconstruction of the historical economic and population geography of a small West Indian island. During the initial fieldwork and data gathering period, it became evident that many of the 20th-century problems were linked directly to 19th- and even 18th-century conditions in St. Vincent and the British West Indies. It was decided, therefore, to review as much of St. Vincent's past as possible in order to trace the patterns of economic and demographic change.

The time spectrum for this study extends from 1763, the date of Great Britain's acquisition of St. Vincent, to the latest published census, in 1960. Because of the delay in publishing the final results of the 1970 population census and the incomplete economic statistics for the 1960s, it was necessary to limit the investigation to 1960.

Problem and Hypothesis

The problem of concern in this study is the relationship between fluctuations in the export economy and changes in the variables of population growth and composition of St. Vincent. An examination of the economically "dependent" status of the island and the major demographic changes over nearly 200 years

reveals a pattern that suggests the paramount role of the export economy in affecting the rate of population growth and changes in the variables of demographic composition.

It was hypothesized that the size, distribution, and characteristics of St. Vincent's population have been affected by variations in the national export economy from the initial British exploitation of the island in 1763 up to 1960. The comprehensive examination of the economy and population in the preceding chapters supports this hypothesis.

Summary of the Export Economy

In Part I of this study, the foundation of St. Vincent's export economy—the sugar industry—is traced from its beginning in 1763 to its demise after the turn of the 19th century. The arrowroot starch, Sea Island cotton, and banana industries are then discussed.

The Sugar Industry

It was only after the Carib Wars in the last quarter of the 18th century that St. Vincent's sugar economy could expand to its potential. Despite the abolition of the slave trade in 1808, St. Vincent succeeded in reaching its highest production in 1828, shortly before the apprenticeship and emancipation of slaves occurred.

When the legal institution of slavery ended in 1838, the sugar planters were faced with periodic labor shortages, as the ex-slaves initially shunned estate work. To meet this problem,

the St. Vincent legislature approved and funded the direct importation of alien agricultural laborers. In the late 1840s, Portuguese Madeirans were brought in, along with "liberated" Africans taken from slave ships and interned at Crown expense in Sierra Leone and St. Helena.

The burden of maintaining unprofitable or heavily indebted sugar estates in St. Vincent resulted in many plantations being abandoned after the end of slavery. Even the influx of foreign immigrant workers for two decades after emancipation did not cause a major recovery in sugar production. This was due in part to the equalization of sugar duties in Britain in 1854. The spark that did lead to a resurgence in sugar manufacture in St. Vincent was the enactment in 1857 by the St. Vincent legislature of the West Indian Encumbered Estates Act. Its purpose was to give a clear land title to purchasers of abandoned or bankrupt estates in the island.

Through the actions of the West Indian Encumbered Estates Act Court and the recommencement of large-scale immigration in 1861, this time of indentured East Indian "coolies," the Vincentian sugar industry experienced a recovery that lasted until about 1880. In 1874, Britain completely eliminated sugar duties on foreign-grown sugar, and soon afterwards European beet sugar producers began flooding the English market. The brief resurgence of St. Vincent's historically inefficient sugar industry was over by 1880. Thereafter, sugar exports declined until, by 1892, arrowroot starch exports superseded sugar as the primary export.

The disastrous hurricane in 1898 destroyed many of the remaining sugar mills and was followed in 1902 by the devastating eruption of the Soufrière volcano. For all practical purposes, it can be said that St. Vincent's sugar industry ended in 1902. Although there was a brief flurry of sugar production during the First World War, the industry subsisted with only one major mill as late as 1960. For many years after 1918, production was often only sufficient to fill local demand.

The Arrowroot Starch Industry

Arrowroot starch has been produced in St. Vincent throughout most of its history. Initially, it was a small-scale slave enterprise until emancipation; thereafter, many ex-slaves began cultivating the arrowroot rhizomes. It remained essentially a small cultivator product throughout the 19th century, producing a low-quality starch that faced periodic gluts in Britain.

With the demise of the sugar industry, more estates began producing arrowroot, increasing both the quantity and quality available for export. Unfortunately, the English market was usually saturated, which resulted in frequent price declines.

In the early 1920s, the United States emerged as a large importer of arrowroot and continued to buy increasingly more starch until it superseded Britain as the chief consumer of arrowroot in 1931. The world depression in the 1930s affected all exports from St. Vincent, but the arrowroot industry, by then

mostly an estate-grown commodity, suffered the least and recovered the most quickly.

Although arrowroot production declined during the Second World War, as large and small growers alike turned to the profitable food trade in the Caribbean, it recovered soon after the end of hostilities. The labor competition of banana cultivation in the mid-1950s, together with a strong United States demand and a faltering Vincentian supply of arrowroot starch, caused the American buyers to seek substitute starches in the early 1960s that provided a more reliable supply at more favorable prices in the United States. Throughout most of the 1960s, the period beyond the scope of this study, St. Vincent has had to maintain a store of several years' supply of arrowroot starch, with the hope of eventually selling it and trying to retrieve the lost market.

The Sea Island Cotton Industry

St. Vincent's cotton industry has functioned since the earliest years of British settlement in the island. Most of the pre-20th century activity, however, was restricted to the growing of the lower quality Marie Galante variety, usually in the drier Grenadine dependencies. The 19th-century sugar era in St. Vincent successfully excluded cotton production from the "main" island, and it was not until sugar manufacture declined after 1880 that St. Vincent's cotton industry was revitalized.

Depressed conditions in the island in the 1890s led to an examination of possible alternative export commodity production

through the offices of the West Indian Royal Commission of 1897. Experimental Sea Island cotton was planted in St. Vincent in the 1902-03 season and was immediately found to be successful. With the United States retaining increasingly larger amounts of cotton for its own cotton industry, along with the demand in Great Britain for high-quality long-staple cotton, a ready market was open for Vincentian Sea Island cotton exports. By 1910, Sea Island cotton exports had replaced both sugar and arrowroot starch production in the island.

Despite the war-induced high prices for cotton between 1914 and 1918, sugar production proved to be temporarily even more profitable as shortages in Europe caused many Vincentian estates to replant their arrowroot and cotton lands in sugar cane. By 1920, however, the ravages of the boll weevil in the Sea Islands of Southeastern United States had led to speculative price increases in the world cotton trade. The boom in prices and production of Sea Island cotton in St. Vincent was quickly followed by a slump in prices and concomitant reduction in Vincentian planting.

St. Vincent's industry was sustained somewhat in the early 1920s as the boll weevil continued to destroy much of the United States' crop. At the same time, however, Egyptian cotton and artificial fibers (silk and rayon) began competing with the extra-long-staple Sea Island variety in the English lace trade.

With uncertain market conditions in Britain, many Vincentian growers, both large and small alike, increased their arrowroot acreages in place of cotton, especially after the emergence of

the United States as a major buyer of arrowroot starch in the mid-1920s. The world economic depression of the 1930s severely affected St. Vincent's cotton industry, which suffered a longer period of depressed prices and demand than did arrowroot.

Britain's entry into the Second World War created favorable conditions for Sea Island cotton as both the demand and price were guaranteed by the British Government. Production and labor costs in St. Vincent, however, soon made cotton cultivation precarious at the same time as prices for ground provisions increased throughout the Caribbean area. Estate growers and small cultivators once again withdrew land from the traditional export crops and planted food crops for the intra-Caribbean market.

After the war, cotton production never fully returned to pre-war levels, as trading arrangements in Britain were usually uncertain and lacked a "futures" market. In addition, the rapid growth of banana cultivation in St. Vincent after 1953 caused competition for land and labor. Within 3 years, the value of banana exports exceeded those of Sea Island cotton. A final blow was dealt to St. Vincent's cotton industry by the total destruction by fire of the island's only cotton gin, in 1959. Between 1958-59 and 1960-61, cotton acreage fell by 90 per cent; thereafter, the industry faded as a major economic enterprise.

The Banana Industry

Banana production for export has been confined mostly to the 20th century. Two early attempts to establish this industry failed before the end of the Second World War. As a result of the

recommendations of the West Indian Royal Commission of 1897, bananas were planted in 1898, and the first meager shipment to Britain occurred in 1903. Handling and refrigeration problems caused the venture to fail.

Later, during the years of the world economic depression in the early 1930s, banana cultivation was started again, this time under contract with a Canadian subsidiary of the United Fruit Company. A cooperative banana marketing board was established to facilitate the gathering, packing, and shipping of the banana stems for the Canadian market. The production contract was to be in force from 1936 to 1940 (later extended to 1942), with the Canadian company taking all of the bananas grown in St. Vincent.

Unforeseen problems, such as the small grower's unfamiliarity with banana cultivation, in St. Vincent, a shortage of planting material, poor transportation and handling facilities, and especially the immediate appearance of "Panama disease" in the 'Gros Michel' banana stands soon caused production to decline. In addition, the advent of the Second World War caused disruptions in Caribbean shipping, and thus banana cultivation faced an uncertain future. Although the Canadian company took bananas from St. Vincent up to 1942, all banana shipments ceased after that year.

Following the two previous unsuccessful ventures, banana cultivation was again re-established on a small scale in 1947, with most of the fruit transshipped to St. Lucia for re-export to market. In 1964, a Dutch-owned fruit shipping company, Geest Industries Limited, signed a contract providing for the export of all Vincentian bananas to Britain. With a guaranteed market, and a new

strain of banana ('Robusta') planted, the banana industry succeeded in providing a quick, profitable cash crop for the small growers and, later, for the estates. In 1956, the value of banana exports exceeded that of any other single export commodity and continued to increase. Price declines between 1958 and 1961, however, forced a rationalization of banana production in St. Vincent, so that many inefficient small growers who had hastily engaged in banana cultivation between 1954 and 1958 were forced out.

In the post-1960 period, bananas provided the mainstay of St. Vincent's export economy. Numerically, there were more small growers (farming less than 5 acres each) than large estate growers of bananas in the 1960s, but the estates were more efficient and accounted for the largest percentage of banana exports to Britain.

Minor Cash Crops

Among the many minor cash crops raised in St. Vincent, two stand out—cocoa and coconuts. Cocoa was one of the earliest crops in St. Vincent and was grown in the Leeward valleys by the French settlers who preceded the British. With the establishment of British sugar production in St. Vincent after 1763, and the gradual elimination of small farmers, especially the French leaseholders, cocoa bean exports diminished to insignificance in the late 18th century and throughout most of the 19th century.

As sugar production declined after 1880, cocoa production (among other alternative cash crops) increased. The attempts to enlarge the landowning class in St. Vincent in the 1880s resulted in a slight resurgence of cocoa tree plantings, particularly on

the small Leeward land parcels. Through the efforts of the West Indian Royal Commission of 1897, a Land Settlement Scheme was established in St. Vincent to increase further the number of small landholders on whose parcels cocoa was a mandatory crop. The hurricane in 1898 and the Soufrière volcanic eruption in 1902, led however, to the destruction or abandonment of many cocoa trees in the affected areas. Nevertheless, replanting followed quickly, so that the largest quantity of cocoa bean exports occurred in 1907, although the highest value of exports was reached in 1915. In the latter year, 7 per cent of St. Vincent's export value was accounted for by cocoa, a level that steadily declined thereafter.

Several factors led to the decline of the Vincentian cocoa industry after the First World War—a damaging hurricane in 1921, the rapid expansion of West African cocoa plantings after 1920 (resulting in declining prices), and the world trade depression in the 1930s. Between 1930 and 1960, the value of cocoa bean exports never exceeded 0.5 per cent of the total value of Vincentian exports.

Copra (sun- or kiln-dried coconut meat) is essentially a 20th century cash crop in St. Vincent. The first large-scale commercial coconut plantings in the island took place in 1911 and were expanded in the 1920s and 1930s. Throughout its history, copra (and coconut) production has been overwhelmingly an estate-grown product, with the largest acreages found along the Windward coast, particularly in the old "Carib Country" in the northeastern part of the island.

Most of the coconut products exported from St. Vincent between 1935 and 1960 have not been in the form of copra but rather as whole nuts. A shortage of fats during the Second World War increased the value of exports to the point where 20 per cent of the total value of Vincentian exports was accounted for by coconuts. As estates began cultivating more bananas in the 1950s, coconut exports declined, so that by 1960, only 14 per cent of St. Vincent's total exports were derived from this source.

Summary of Population Change

In Part II of this study, the change in the rate of population growth and the factors of population composition in St. Vincent are traced from 1763 to 1960. Emphasis is placed upon the changes recorded during the censal era, beginning with the first official census taken in 1844 and ending with the latest published census of 1960. The growth of St. Vincent's population is divided into 4 eras: (1) pre-censal estimates: the era of slavery and apprenticeship; (2) the era of alien labor immigration, 1844 to 1881; (3) the era of emigration, 1881 to 1931; and (4) the era of rapid population growth, 1931 to, 1960.

Pre-Censal Estimates

The earliest population estimate for St. Vincent was for the year 1735, when the total was thought to be between 3,800 to 10,000. The inhabitants were French farmers and their slaves; the native Carib Indians were usually not counted. At the time of Britain's acquisition of St. Vincent in 1763, the population was estimated to be 7,100. Between 1764 and 1805 (the last estimate before the

abolition of the slave trade, in 1808), the population grew by about 122 per cent, from 9,518 to 18,550, most of which was accounted for by the importation of African slaves. By 1825, the last estimate before slavery ended, the population had grown to 27,905.

The Era of Alien Labor Immigration, 1844 to 1881

With the end of slavery in 1838, the planters in St. Vincent became concerned with obtaining an abundant and cheap labor supply, as many ex-slaves opted to withdraw temporarily or permanently from estate work. As a result of these concerns, the first official census was taken in 1844 to ascertain the number of people in the colony; the size of the population was estimated to be 27,248.

The St. Vincent legislature sought to increase the pool of laborers by importing indentured agricultural workers. Between 1844 and 1880, in the order of their arrival, 5,575 indentured Portuguese Madeirans, "liberated" Africans, and East Indian "coolies" migrated to St. Vincent. There were 3,138 Portuguese Madeirans and "liberated" Africans landed between 1844 and 1862 and 2,429 East Indians between 1861 and 1880. It was during the latter time interval that St. Vincent's sugar industry was partially restored by the actions of the West Indian Encumbered Estates Act of 1857. The census of 1881 revealed a population of 40,548.

The Era of Emigration, 1881 to 1931

The years between 1881 and 1931 encompass some of the worst economic and natural disasters in St. Vincent's history. The increasingly unprofitable monoculture of sugar in the last 25 years

of the 19th century resulted in a steady emigration of Vincentians to other more remunerative destinations in the circum-Caribbean region, especially to Trinidad and Tobago. The effect of the hurricane in 1898 and the Soufrière eruption in 1902 caused heavy emigration; the annual rate of net migration between 1891 and 1911 was -18.89 per thousand, the highest ever recorded by the official censuses. The population losses from emigration were so great that population increased at an average annual rate of only 0.34 per cent over the years 1881 and 1931, growing from 40,548 to 47,961. Natural increase was estimated to be 40,420, yet the change in the total population in this broad interval was only 7,413.

The Era of Rapid Population Growth, 1931 to 1960

In the interval between 1931 and 1960, St. Vincent's population experienced its most rapid annual rate of growth in its censal history. The rate of growth was 1.72 per cent per year over the 29-year period. A combination of the effects of high fertility and declining mortality (despite periodic emigration) accounted for the "explosive" growth rates after 1931. From 47,961 persons in 1931, the population grew to 79,948 in 1960. This would have been considerably larger had laborers not emigrated during the Second World War or during the brief existence of the West Indian Federation. For example, between 1947 and 1959, natural increase amounted to 28,000, while net migration amounted to -11,220. This means that 40 per cent of the natural increase was "neutralized" by emigration. Had St. Vincent

experienced no emigration and had it grown at the annual rate of natural increase for the year 1957 (4.18 per cent), the population would have doubled in 17 years.

The Spatial Distribution and Density of Population

One of the variables that has changed very little since the early 19th century is the spatial distribution of the population. Most of the population has been and still is concentrated below the 1,000-foot level. The ruggedness of the topography above 1,000 feet has effectively eliminated these lands from continuous exploitation. The main concentrations of population have been along the coasts and the lower reaches of the interior valleys, south of Chateaubelair on the Leeward coast and Georgetown on the Windward coast, increasing in density towards Kingstown.

The usual calculation of population density (total population divided by total area) results in a population density of 182 persons per square mile in 1844 and 535 per square mile in 1960. However, by including only the accessible portions of the "main" island of St. Vincent (the area below the 1,000-foot elevation) the effective density of population increases from 339 persons per square mile in 1844 to 1,002 per square mile in 1960—a much more realistic measurement of crowding in the island.

Summary of the Composition of Population

The variables of population composition analyzed in this study are: (1) age; (2) sex; (3) race; (4) rural-urban residence; and (5) occupational status. These variables are studied censally from 1861 through 1960.

Age Structure

In general, the age structure of St. Vincent has been characterized by its youthfulness. Under the age of 20 years, there has been relatively little change between 1861 and 1960. In 1861, 51 per cent of the population was under 20 years of age and in 1960, this had increased to 58 per cent.

Most of the change in age composition has been confined to the younger working-age groups, 20 through 39 years. These are the ages most selective of emigrants. Above 40 years of age, there has been little fluctuation over the last century.

When age and sex are taken together, a picture is revealed of predominantly young male adults entering the mass emigration streams between 1881 and 1931. It was only after the Second World War, especially in the late 1950s, that young female adults began emigrating, first to Trinidad and Tobago and later, in the early 1960s, to Great Britain.

It is safe to say that St. Vincent has been an extremely "young" population, the result of both heavy emigration of young adults and the high fertility experienced after the 1930s. Consequently, the economic burden of dependency has been high in the island throughout the post-slavery era. From a minimum of 72 "dependents" (those under 15 and over 64 years of age) per 100 working-age persons (15 through 64 years of age) in 1911, the dependency ratio increased to a maximum of 115 in 1960, with 91 per cent of the 1960 dependency ratio made up of children under 15 years of age.

The Sex Composition

Throughout its demographic history, St. Vincent has been experiencing a declining sex ratio (the number of males per 100 females). This is the result of the very high sex ratios during slave days that were reduced after the importation of slaves was abolished in 1808. Thereafter, the higher mortality of the aging ex-slaves plus the low fertility rate among the predominantly black population caused the sex ratio to fall so that by 1844, there were only 86 males per 100 females.

The period of alien labor immigration reversed this trend briefly, raising the sex ratio to a maximum of 90 in the census years of 1861 and 1871. After 1871, the heavy emigration experienced for the next half-century once again lowered the sex ratio to a minimum of 76 in 1921. The high fertility rates after 1931 and the world-wide restrictions on migration caused St. Vincent's sex ratio to increase from 83 in 1946 to 89 in 1960. St. Vincent is, thus, still characterized by its extreme youthfulness and its female sex dominance.

When the sex ratio by age groups is examined, the effects of past sex selective emigrations can be seen. The lowest sex ratios registered in the island have been of young adults in 1911 and 1921.

The Racial Composition

Over the 200 years included in this study, the overwhelming majority of St. Vincent's population has remained black (African

or Negro). This was clearly the result of the period of slavery when only a relatively few "whites" and "mixed" were found operating the sugar estates or working as free men in the towns and villages.

From a maximum of 90 per cent black population in 1812, this proportion declined slowly but steadily as the "mixed" (or "colored") segment increased. In 1861, when the East Indians began arriving, the black component of the population accounted for 71 per cent of the total, while the "mixed" group (which included the East Indians) accounted for 20 per cent of the population. Thereafter, as late as 1960, these percentages varied only a few percentage points at each census.

The "white" (or "European") population decreased from a maximum of 11 per cent in 1787 to a minimum of slightly more than 2 per cent in 1960.

Rural-Urban Residence

None of the censuses taken in St. Vincent have satisfactorily taken account of the sizes of settlement. The terms "urban" and "rural" have never been used; instead, in the 1946 and 1960 censuses, "small towns" were set aside from their rural environs. Although this practice was more satisfactory than any previously adopted, it still failed to distinguish genuine urban and rural characteristics. If settlements possessed "certain institutions or facilities" and had 2,000 inhabitants or more, they were designated as "small towns" for census purposes.

St. Vincent, in effect, is a "rural" island. The only settlement that can be judged "urban" is Kingstown, the capital

and primate city. Other "small towns" are still agriculturally oriented as many residents journey to their fields during the day and return to their village homes in the evening. Life in most villages is distinctly rural in character.

Occupational Status

The analysis of occupational status in St. Vincent describes how succeeding generations of laborers have earned their living over the past 200 years. From the occupations listed in the censuses from 1861 to 1960, it was helpful to group them into 3 broad industrial categories: (1) primary activities; (2) secondary activities; and (3) tertiary activities.

Although the size of the labor force has increased absolutely over the last century, it has decreased proportionately, from 64 per cent of the total population in 1861 to 29 per cent in 1960. Since the end of large-scale emigrations in the first quarter of the 20th century, the sex ratio of all the industrial groups has shown an increase. The greatest increase was evident in secondary occupations (small-scale manufacturing, carpentry, and construction); between 1911 and 1960, the sex ratio of this group increased from 86 to 256, while that of the primary group (agriculture) increased from 86 to 177. Although the sex ratio also increased for tertiary (service) activities, it was much lower—from 50 in 1911 to 99 in 1960. Typically, males have been much more active in the labor force than females, at all ages, despite their numerical inferiority.

Between 1861 and 1931, the percentage of the labor force engaged in the primary sector remained relatively constant; thereafter,

it declined as more workers entered the secondary and tertiary sectors of the economy. Much of this recent change is the result of younger workers shifting out of farming.

Conclusions

The reconstruction of 200 years of change in St. Vincent's population and export economy reveals a close interaction between these dynamic forces. Owing to its small geographic size, St. Vincent has rarely been in a commanding position to direct the course of its economic development. Although a wide variety of tropical cash crops can be produced in the island, the exogenous influences of world market demand have historically been most important in determining the regimen of export commodities.

Initially, colonized as a "sugar island," St. Vincent was forced in the late 19th century to seek alternative cash crops as competition from European beet sugar producers and more efficient tropical sugar cane producers rendered "muscovado" sugar manufacture in the island less profitable. Of the succeeding overlapping monocultural activities undertaken in St. Vincent (arrowroot starch, Sea Island cotton, and bananas), only 2 have been closely identified with St. Vincent—arrowroot starch and Sea Island cotton. The latter, however, was grown in other islands in the Lesser Antilles and in the Sea Islands of the United States. Although it was St. Vincent's product that became the world's standard for high quality cotton, it, nevertheless, faced price competition from Egyptian cotton, reducing the effect of its uniqueness.

Only arrowroot starch was known world-wide as a Vincentian product that offered the island a measure of monopoly control over price. This enviable position, however, was lost, as supply was usually inadequate to meet demand after the Second World War, forcing arrowroot buyers to seek substitute products, thus causing severe economic disruptions in the Vincentian economy.

Bananas production, the contemporary mainstay of the export economy, provides an insecure future because nearly all former British West Indian colonies, as well as certain African countries, are competitors in this enterprise. So long as a market is guaranteed for St. Vincent's bananas, this monocultural activity will provide a livelihood for the island's agricultural labor force. If economic distress is encountered in banana production, St. Vincent will be forced to seek a new cash crop very quickly, given the low level of non-primary economic activities established in the island.

The hypothesis tested in this study stated that the size, distribution, and characteristics of St. Vincent's population have been affected by variations in the national export economy. From the analysis in this study of the population and economy, all results suggest that the hypothesis is valid.

The early British colonial decision to settle St. Vincent as a sugar island resulted in a rapid transformation of the population to an agriculturally-oriented, predominantly black society. With the emancipation of slaves in 1838, the immigration of alien indentured laborers between 1844 and 1880, the seasonal

and permanent emigrations of Vincentians between 1880 and 1931, and the rapid rate of natural increase after 1931, St. Vincent's population has developed its distinctive demographic profile.

Today, the island is racially black, with a growing proportion of mixed offspring and a declining proportion of whites. The effects of emigration, following the demise of the sugar industry at the turn of the last century, can be observed in the age and sex structure. Sex selective emigration has reduced the sex ratio to an abnormally low level, while continued high fertility and declining mortality has resulted in a so-called "population explosion" over the last 30 to 40 years. As a result of high rates of natural increase and the effects of past emigration losses, the burden of dependency has also "exploded."

Any further development of St. Vincent must surely take into account the large fraction of the population under 15 years of age. Most of these are consumers but not yet producers. The growing attitude among new entrants into the labor force is that agricultural work is less desirable than any other type of economic activity. Such a point of view will affect all the island's attempts to improve the standard and level of living, given past dependence upon monocultural agricultural cash crops for export.

Arrowroot, until recently a Cinderella status, takes on new importance, now that it is to be used in the manufacture of "non-carbon" paper for computers. Arrowroot, therefore has unlimited possibilities for younger Vincentian farmers. Will they be found in the fields cultivating this lucrative crop? Therein

lies a peculiar dilemma which torments our under-developed world,
of which St. Vincent is but a microcosm!

APPENDIX I

APPENDIX I

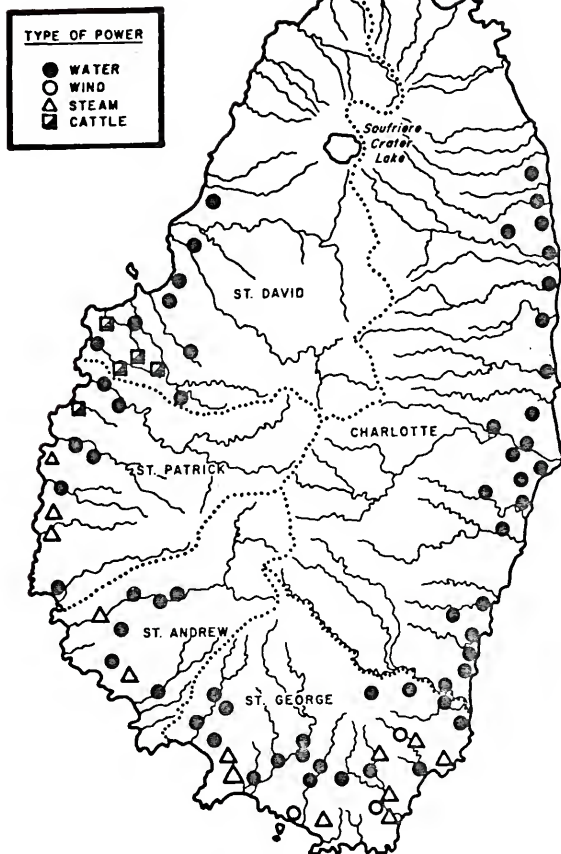
ALLOTMENT OF EAST INDIANS, BY ESTATE,
ST. VINCENT, 1861-1880

ESTATE	1861	1862	1866	1867	1869	1871	1875	1880	Total
Adelphi	25	26	--	--	36	--	22	--	109
Bellevue	--	--	--	--	44	--	30	--	74
Colonarie Vale	--	--	--	--	--	29	18	24	71
Grand Sable	--	--	--	--	--	--	23	--	23
Langley Park	--	--	29	19	12	--	--	--	60
Lot 14	--	--	30	27	23	--	23	--	103
Mt. Bentinck	15	--	--	--	--	--	--	--	15
Mt. Grennan	15	--	--	--	--	--	--	--	15
Orange Hill	--	--	48	37	--	--	23	--	108
Rabacca	49	--	32	--	25	30	10	--	146
Sans Souci	15	--	--	--	27	37	22	--	101
Tourama	40	--	20	27	17	--	34	--	138
Union	15	26	20	44	--	35	--	--	140
Yambou Vale	--	22	--	--	--	--	--	--	22
Argyle	30	12	30	48	23	15	--	55	213
Arnos Vale	--	20	--	23	--	--	--	--	43
Belair	--	26	--	24	--	--	--	25	75
Calder	20	15	--	20	--	30	32	31	148
Cane Hall	--	25	--	--	--	--	--	--	25
Carapan	--	41	--	47	--	--	--	14	102
Glen	--	10	--	--	--	--	--	--	10
Montrose	--	--	--	31	12	--	--	--	43
Mt. Pleasant	--	11	--	--	23	19	28	--	81
Rivulet	--	21	--	--	--	--	--	--	21
Cane Grove	--	--	--	--	--	16	23	33	72
Pembroke	--	--	--	29	14	18	--	--	61
Questelle's	--	7	--	--	--	--	--	--	7
Mt. Wynne	--	--	--	30	1	--	--	10	41
Peter's Hope	--	20	--	--	11	26	--	--	57
Rutland Vale	20	4	--	32	26	33	34	--	149
Wallilabou	--	--	--	--	--	16	--	--	16
Richmond	--	15	--	24	--	--	--	--	39
Rose Bank	--	--	--	--	--	21	--	19	40
Annual Total	259	301	209	462	294	325	322	211	2,383 ^a

Source: Government Gazette, 1861 through 1880 *passim*.

^aThe total number of East Indians landed in St. Vincent is 2,429, as listed in the Immigration Office's "Register of Immigrants - No. 1, Indians". The difference may be accounted for by death, hospitalization, missing, and otherwise engaged in activity out of the estate system.

APPENDIX II



APPENDIX II
TYPE OF SUGAR MILL POWER,
ST. VINCENT, 1854

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BIOGRAPHICAL SKETCH

Joseph Spinelli was born March 12, 1939, in Springfield, Ohio. In June, 1957, he was graduated from Springfield Senior High School. In June, 1963, he received the degree of Bachelor of Science in Business Administration (cum laude) with a major in International Trade from The Ohio State University. From 1963 until 1966, he was enrolled in the Graduate School at The Ohio State University in the Department of Geography. He served his first two years of graduate studies as a Merston Fellow in National Security Policy and his third year as a graduate assistant in the Department of Geography. In September, 1966, he received his degree of Master of Arts with a major in Geography. From September, 1966, until September, 1969, he was enrolled full-time in the Graduate School of the University of Florida in the Department of Geography. He served as research assistant in the 1966-67 year and as a National Defense Education Act (Title VI) Fellow in Latin American Studies in the 1967-68 and 1968-69 years. Twice during this period he was engaged in foreign field doctoral research in the West Indies. Since September, 1969, he has pursued his work toward the degree of Doctor of Philosophy while serving as Instructor in the Department of Geography at Bowling Green State University, Bowling Green, Ohio.

Joseph Spinelli is a member of Gamma Theta Upsilon (National Geography Honorary), the Association of American Geographers (Southeastern Division and East Lakes Division), the American Geographical Society, and the Mid-West Association of Latin American Studies.

I certify that I have read this study and that, in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

David L. Niddrie

David L. Niddrie, Chairman
Professor of Geography

I certify that I have read this study and that, in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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Professor of Geography

I certify that I have read this study and that, in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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Clark I. Cross
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I certify that I have read this study and that, in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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Professor of Sociology

This dissertation was submitted to the Department of Geography in the College of Arts and Sciences and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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